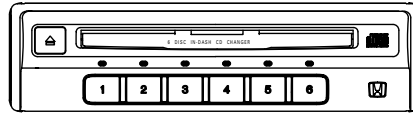


Service Manual

Pioneer

HONDA



ORDER NO.
CRT2351

6 DISC IN-DASH CD CHANGER

CDX-MG6036ZH

US

COMPACT
disc
DIGITAL AUDIO

- This service manual should be used together with the following manual(s):

Model	Order No.	Mech. Module	Remarks
CX-890	CRT2376	G1	CD Mechanism Module:Circuit Description, Mechanism Description, Disassembly

VEHICLE	DESTINATION	PRODUCED AFTER	PART No.	ID No.	PIONEER MODEL No.
Not specified	U.S.A.	June 1999	08A06-3B1-3000	—	CDX-MG6036ZH/US

- To operate this product, a 14-pin H-BUS head unit is required.

When performing adjustments, connect the 8-pin/14-pin conversion jig (GGD1163) to a Pioneer 8-pin H-BUS head unit. You can use it in place of a 14-pin H-BUS head unit.

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		8. OPERATIONS AND SPECIFICATIONS	63

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 253 Alexandra Road, #04-01, Singapore 159936

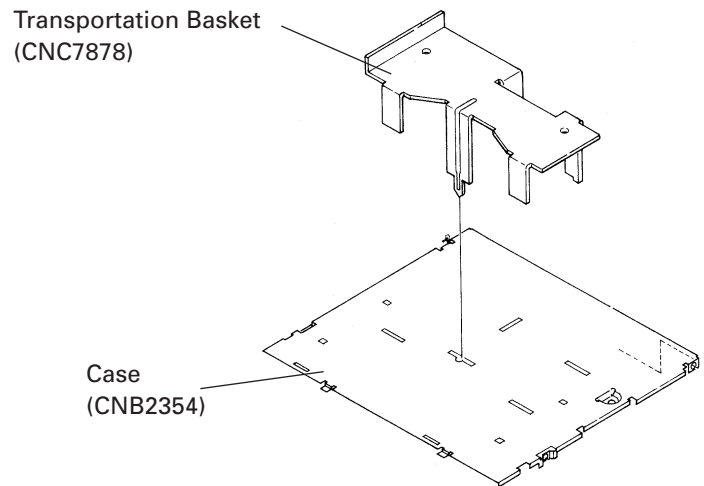
● CD Player Service Precautions

1. For pickup unit(CXX1311) handling, please refer to "Disassembly"(see page 53).
During replacement, handling precautions shall be taken to prevent an electrostatic discharge(protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.
3. Please checking the grating after changing the service pickup unit(see page 46).

● When the Repair is Complete

When the repair is complete, make the CD mechanism ready for transportation implementing the following procedures:

1. Press the changer side 1 and 4 simultaneously to turn the ACC on.
2. As the ACC is turned on, the disc indicator blinks in red.
3. When the blinking is stopped, the mechanism is ready for the transportation.
4. Attach the Transportation Bracket (CNC7878). Now you can transport it.(See the figure below)

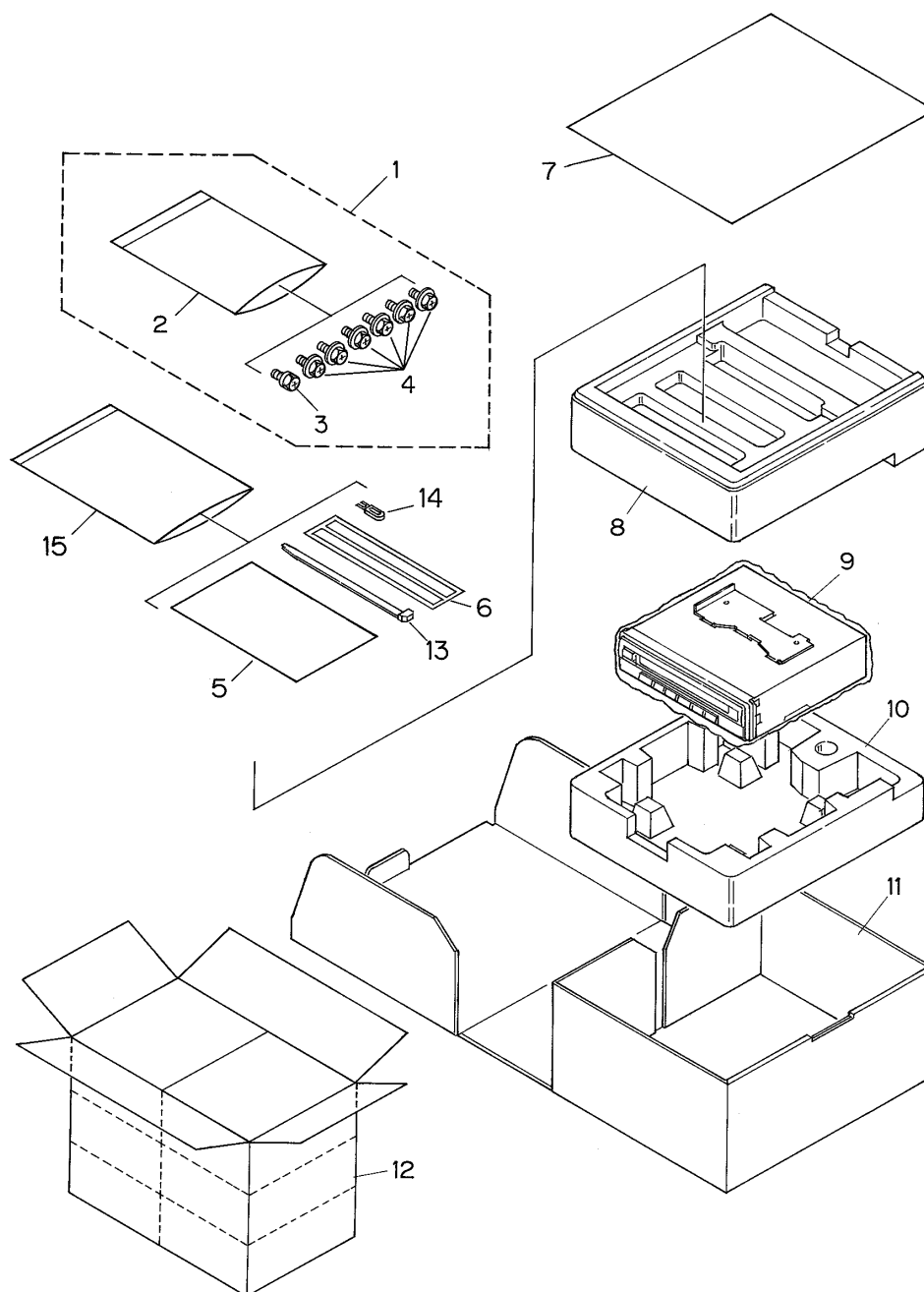


1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



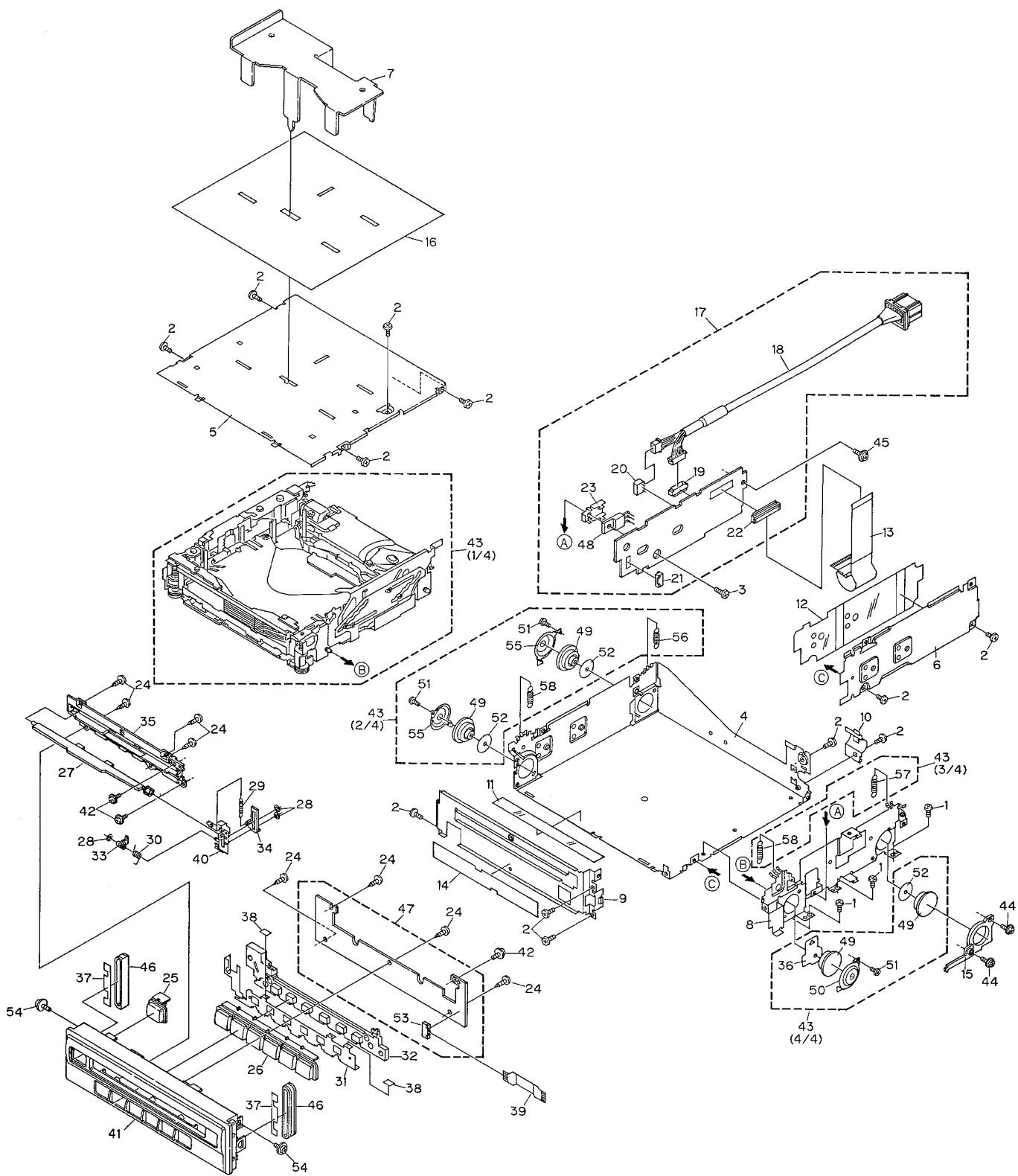
NOTE:

- Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.

● PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Screw Assy	CEA2565		9	Polyethylene Bag	E36-609
*	2	Polyethylene Bag	CEG-127		10	Protector	CHP2124
	3	Screw	HMF40P060FZK		11	Carton	CHG3764
	4	Screw	HMF50P080FMC		12	Contain Box	CHL3764
	5	Owner's Manual(English)	CRB1553		13	Clamper	CNV4042
	6	Spacer	CNM6551				
*	7	Sheet	CHW1402	*	14	Band	CNF-512
	8	Protector	CHP2123		15	Polyethylene Bag	CEG1116

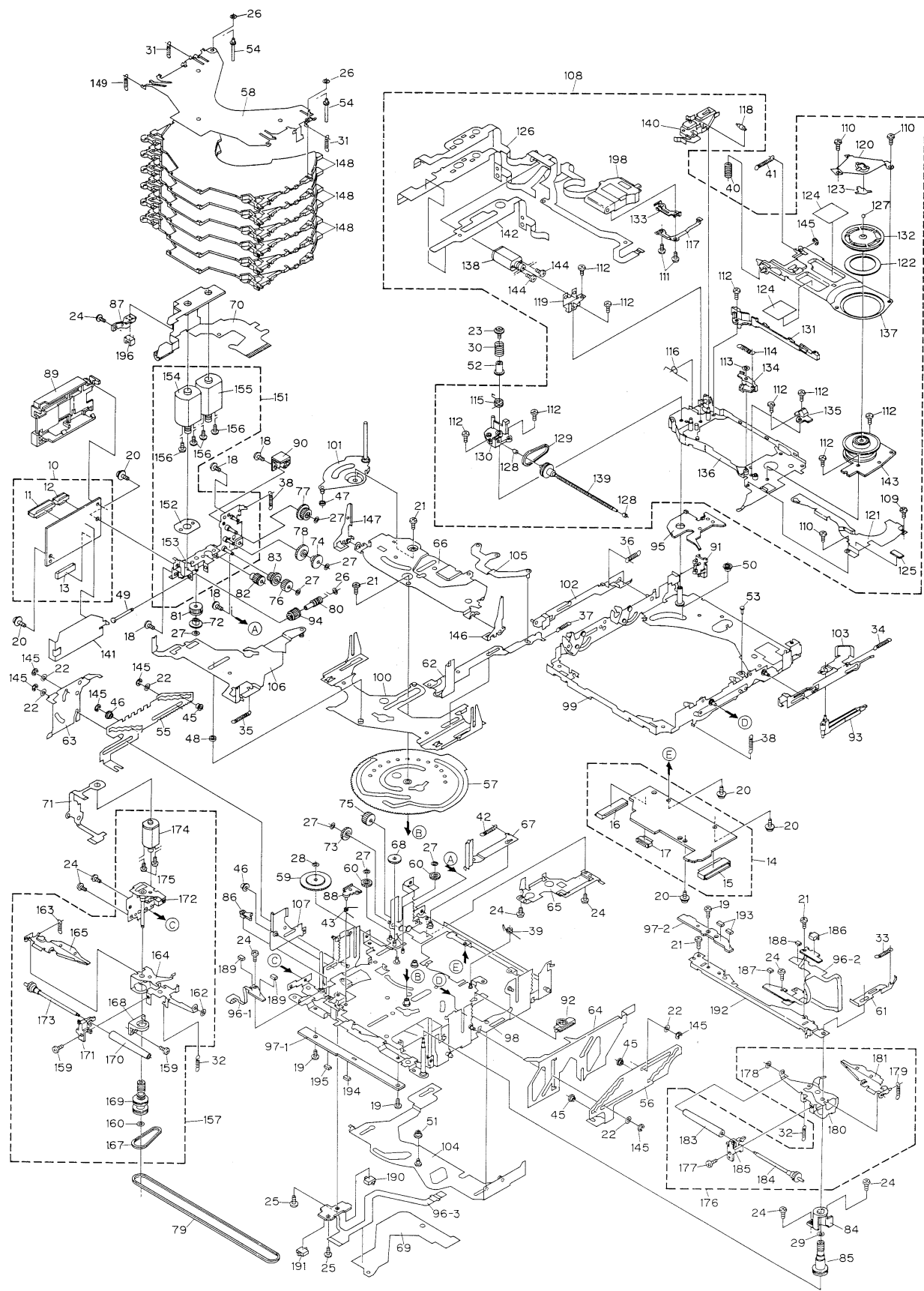
2.2 EXTERIOR



● EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BMZ20P020FMC	31	Conductor	CNC8051
2	Screw	BMZ26P030FMC	32	Lighting Conductor	CNV5901
3	Screw	BMZ26P060FMC	33	Gear	CNV5547
4	Chassis Unit	CXB3407	34	Arm	CNV5548
5	Case	CNB2354	35	Guide	CNV5880
6	Side Frame	CNB2397	36	Sheet	CNM6318
7	Bracket	CNC7878	37	Double Faced Tape	CNM6424
8	Bracket	CNC8026	38	Insulator	CNM6512
9	Front Frame	CNC8110	39	PCB	CNP5373
10	Holder	CNC8111	40	Bracket Unit	CXB3111
11	Insulator	CNM5969	41	Grille Unit	CXB3409
12	Insulator	CNM6112	42	Screw	IMS20P040FMC
13	PCB	CNP5516	43	CD Mechanism Module(G1)	CXK4702
14	Insulator	CNM6409	44	Screw	IMS20P040FMC
15	Holder	CNV5543	45	Screw	IMS26P040FMC
*	16 Caution Label	CRP1200	46	Cushion	CNV5674
	17 Extension Unit	CWM6288	47	Keyboard Unit	CWM6289
	18 Cord	CDE6055	48	Transistor(Q708)	2SB1335A
	19 Connector(CN102)	CKS2200	49	Damper	CNV5120
	20 Connector(CN103)	CKS3597	50	Holder	CNC7826
	21 Connector(CN701)	CKS3785	51	Screw	CBA1250
	22 Connector(CN101)	CKS3989	52	Sheet	CNM5981
	23 Holder	CNC8031	53	Connector(CN901)	CKS3785
	24 Screw	BPZ20P060FMC	54	Screw	IMS26P030FZK
	25 Button	CAC5864	55	Holder	CNC7477
	26 Button	CAC5865	56	Spring(Left Rear)	CBH2065
	27 Door	CAT2003	57	Spring(Right Rear)(Black)	CBH2067
	28 Washer	CBF1038	58	Spring(Front)	CBH2066
	29 Spring	CBH2201			
	30 Spring	CBH2200			

2.3 CD MECHANISM



● CD MECHANISM SECTION PARTS LIST

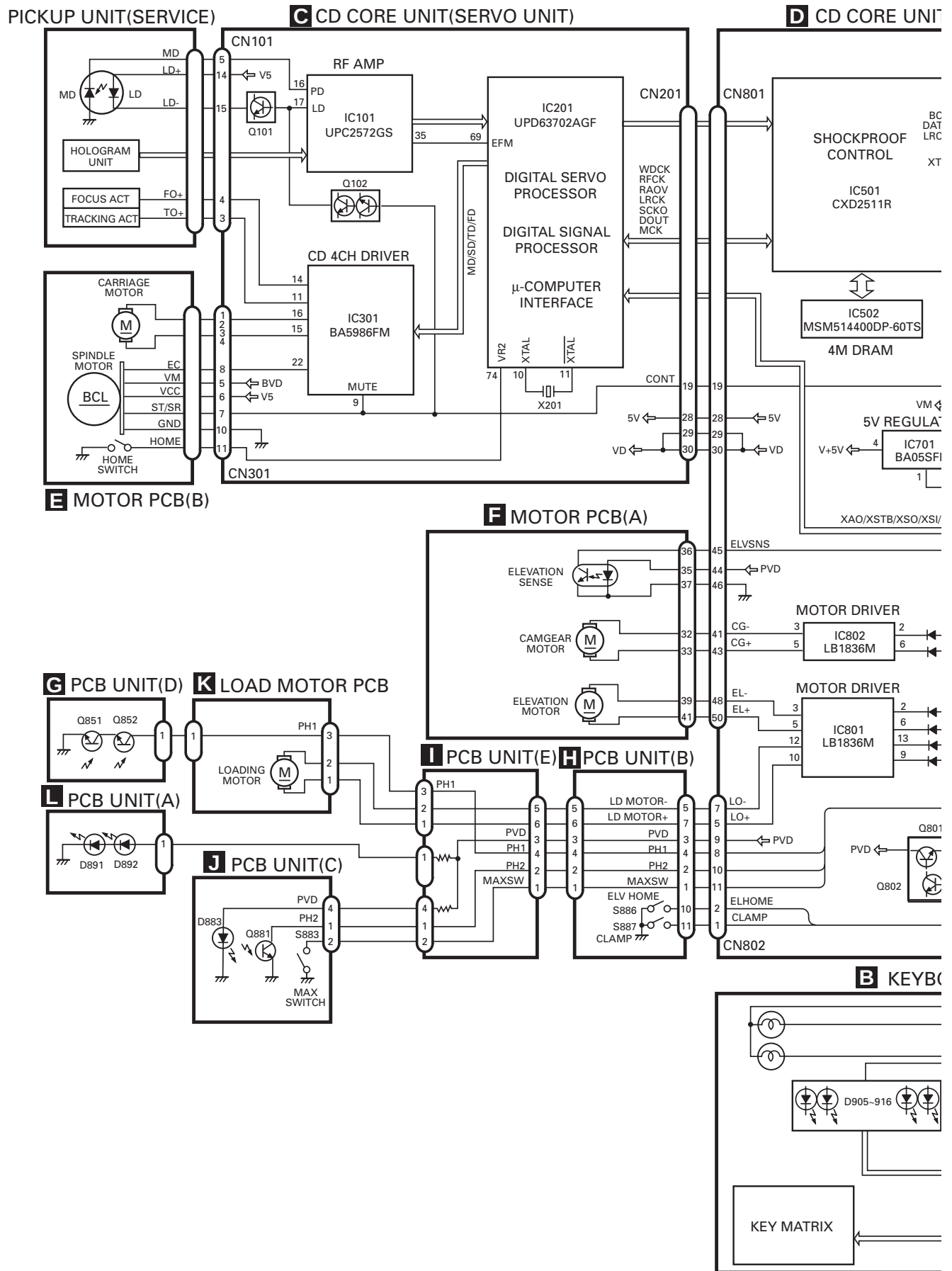
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1-9	●●●●●		54	Shaft	CLA3693
10	CD Core Unit(Servo Unit)	CWX2202	55	Steer	CNC7215
11	Connector(CN101)	CKS2764	56	Steer	CNC7216
12	Connector(CN301)	CKS3966	57	Cam	CNC7227
13	Connector(CN201)	CKS3991	* 58	Holder	CNC7235
14	CD Core Unit(STS Unit)	CWX2203	59	Gear	CNC7236
15	Connector(CN701)	CKS3989	60	Gear	CNC7238
16	Connector(CN801)	CKS3989	61	Lever	CNC7243
17	Connector(CN802)	CKS4054	62	Lever	CNC7244
18	Screw	CBA1037	63	Lever	CNC7245
19	Screw	CBA1041	64	Lever	CNC7246
20	Screw	CBA1076	65	Cover	CNC7441
21	Screw	CBA1250	66	Holder	CNC8613
22	Screw	CBA1405	67	Lever	CNC8024
23	Screw	CBA1452	68	Gear	CNC8140
24	Screw	CBA1453	69	Sheet	CNM5831
25	Screw	CBA1479	70	PCB	CNP5680
26	Washer	CBF1037	71	PCB	CNP5681
27	Washer	CBF1038	72	Gear	CNR1479
28	Washer	CBF1039	73	Gear	CNR1481
29	Washer	CBF1064	74	Gear	CNR1495
30	Spring	CBH2007	75	Gear	CNR1501
31	Spring	CBH2271	76	Gear	CNR1502
32	Spring	CBH2274	77	Gear	CNR1540
33	Spring	CBH2014	78	Gear	CNR1541
34	Spring	CBH2015	79	Belt	CNT1080
35	Spring	CBH2016	80	Worm Gear	CNV5046
36	Spring	CBH2017	81	Gear	CNV5047
37	Spring	CBH2290	82	Gear	CNV5048
38	Spring	CBH2019	83	Gear	CNV5049
39	Spring	CBH2064	84	Holder	CNV5056
40	Spring	CBH2195	85	Pulley	CNV5058
41	Spring	CBH2196	86	Arm	CNV5061
42	Spring	CBH2224	87	Spacer	CNV5066
43	Spring	CBH2250	88	Arm	CNV5189
44	●●●●●		89	Cover	CNV5207
45	Roller	CLA3154	90	Cover	CNV5424
46	Roller	CLA3157	91	Cover	CNV5425
47	Roller	CLA3159	92	Lever	CNV5427
48	Roller	CLA3160	93	Arm	CNV5491
49	Shaft	CLA3179	94	Gear	CNV5519
50	Spacer	CLA3194	95	Holder	CNV5648
51	Roller	CLA3248	96	Composite PCB	CNX3141
52	Bush	CLA3353	97	Composite PCB	CNX2989
* 53	Shaft	CLA3469	98	Chassis Unit	CXB4314

Mark No.	Description	Part No.	Mark No.	Description	Part No.
99	Frame Unit	CXB2702	144	Screw	JFZ14P020FMC
100	Lever Unit	CXB2703	145	Washer	YE15FUC
101	Arm Unit	CXB2704	146	Arm Unit	CXB4953
102	Lever Unit	CXB2708	147	Arm Unit	CXB4954
103	Lever Unit	CXB2709	148	Tray Assy	CXB4307
104	Lever Unit	CXB2711	149	Spring	CBH2269
105	Arm Unit	CXB2712	150	•••••	
106	Lever Unit	CXB2713	151	Cam Motor Assy	CXB3170
107	Lever Unit	CXB2714	152	Spacer	CNC8289
108	Carriage Mechanism Unit(G1)	CXB2998	* 153	Bracket Unit	CXB4165
109	Screw	CBA1041	* 154	Motor Unit(M1 Cam Gear)	CXB3174
110	Screw	CBA1250	* 155	Motor Unit(M3 ELV)	CXB3175
111	Screw	CBA1362	156	Screw	JFZ20P025FMC
112	Screw	CBA1471	157	Loading Arm L Assy	CXB3171
113	Washer	CBF1038	158	•••••	
114	Spring	CBH2008	159	Screw	CBA1453
115	Spring	CBH2009	160	Washer	CBF1038
116	Spring	CBH2010	161	•••••	
117	Spring	CBL1335	162	Washer	CBF1074
118	Roller	CLA3707	163	Spring	CBH2136
* 119	Bracket	CNC7228	* 164	Arm	CNC7241
120	Guide Unit	CXB4417	* 165	Arm	CXB4449
121	Cover	CNC7628	166	•••••	
122	Sheet	CNM6414	167	Belt	CNT1079
123	Sheet	CNM5378	168	Holder	CNV5055
124	Sheet	CNM5695	169	Pulley	CNV5057
125	Sheet	CNM5827	170	Roller	CNV5064
126	PCB	CNP4978	171	Guide	CNV5125
127	Ball	CNR1189	* 172	Bracket Unit	CXB4316
128	Bearing	CNR1423	173	Roller Gear Unit	CXB3176
129	Belt	CNT1079	174	Motor Unit(M2 LOAD)	CXB3177
130	Holder	CNV5037	175	Screw	JFZ14P020FMC
131	Guide	CNV5040	176	Loading Arm R Assy	CXB3172
132	Clamper	CNV5042	177	Screw	CBA1453
133	Rack	CNV5111	178	Washer	CBF1074
134	Arm	CNV5579	179	Spring	CBH2136
135	Holder	CNV5759	* 180	Arm	CNC7242
* 136	Chassis	CXB2698	* 181	Arm	CXB4448
137	Arm Unit	CXB2705	182	•••••	
138	Motor Unit(M4 CARRIAGE)	CXB3178	183	Roller	CNV5064
139	Screw Unit	CXB3179	184	Roller Gear Unit	CXB3176
140	Lever Unit	CXB4450	185	Guide	CNV5126
141	Insulator	CNM6306	186	Switch(S885 MAX)	CSN1052
142	Spacer	CNM6345	187	LED(D883)	CL202IRXTU
143	Motor(M5 SPINDLE)	CXM1120	188	Photo-transistor(Q881)	CPT230SCTD(CD)

Mark	No.	Description	Part No.
	189	LED(D891,892)	CL202IRXTU
	190	Switch(S887 CLAMP)	CSN1051
	191	Switch(S886 ELV HOME)	CSN1052
	192	Bracket Unit	CXB4306
	193	Photo-transistor(Q851,852)	CPT230SCTD(CD)
	194	Resistor(R856)	RS1/8S911J
	195	Resistor(R857)	RS1/8S821J
	196	Photo-interrupter(Q1)	RPI-221
	197	•••••	
	198	Pickup Unit(Service)(P8)	CXX1311

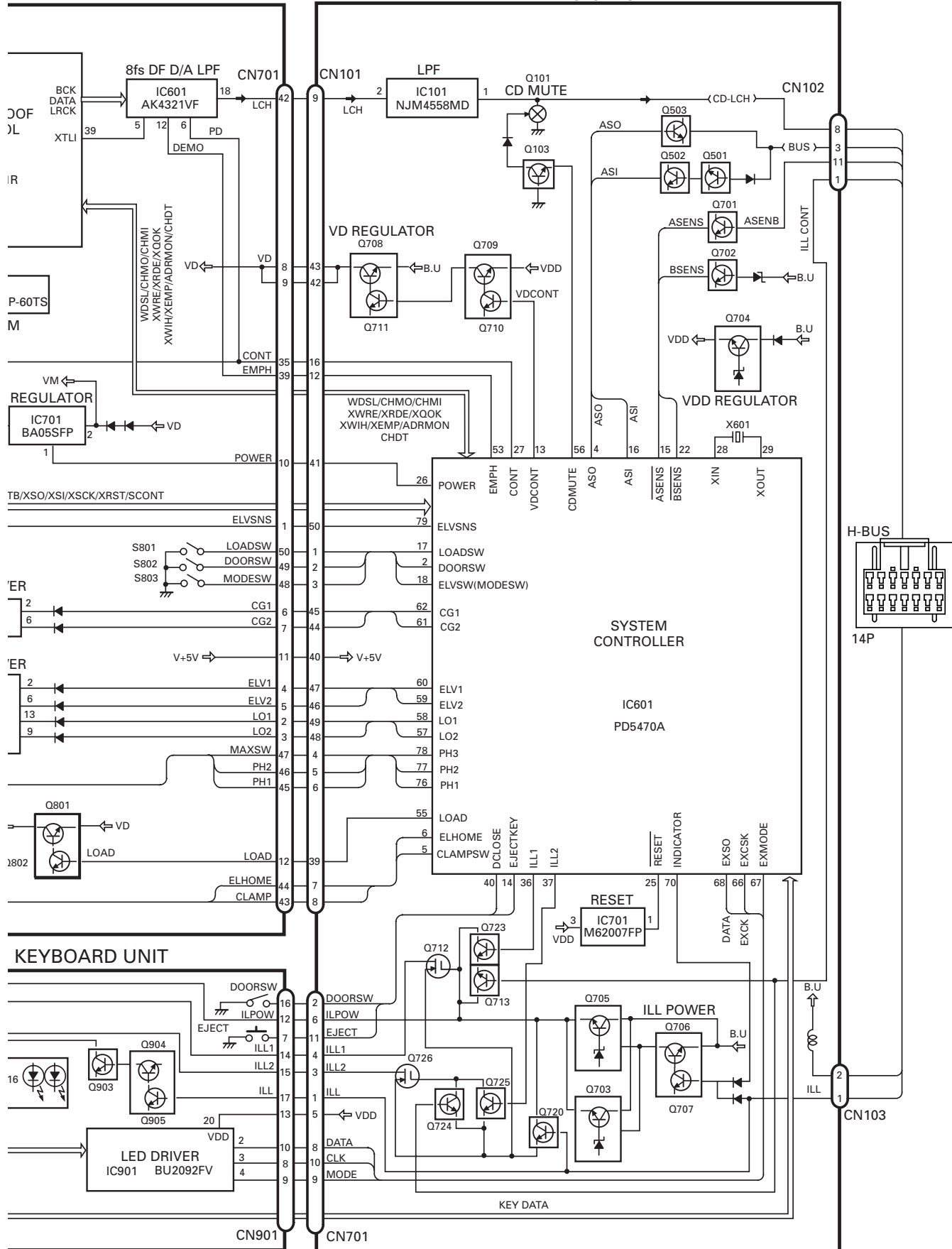
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM



RE UNIT(STS UNIT)

A EXTENSION UNIT



A

B

C

D

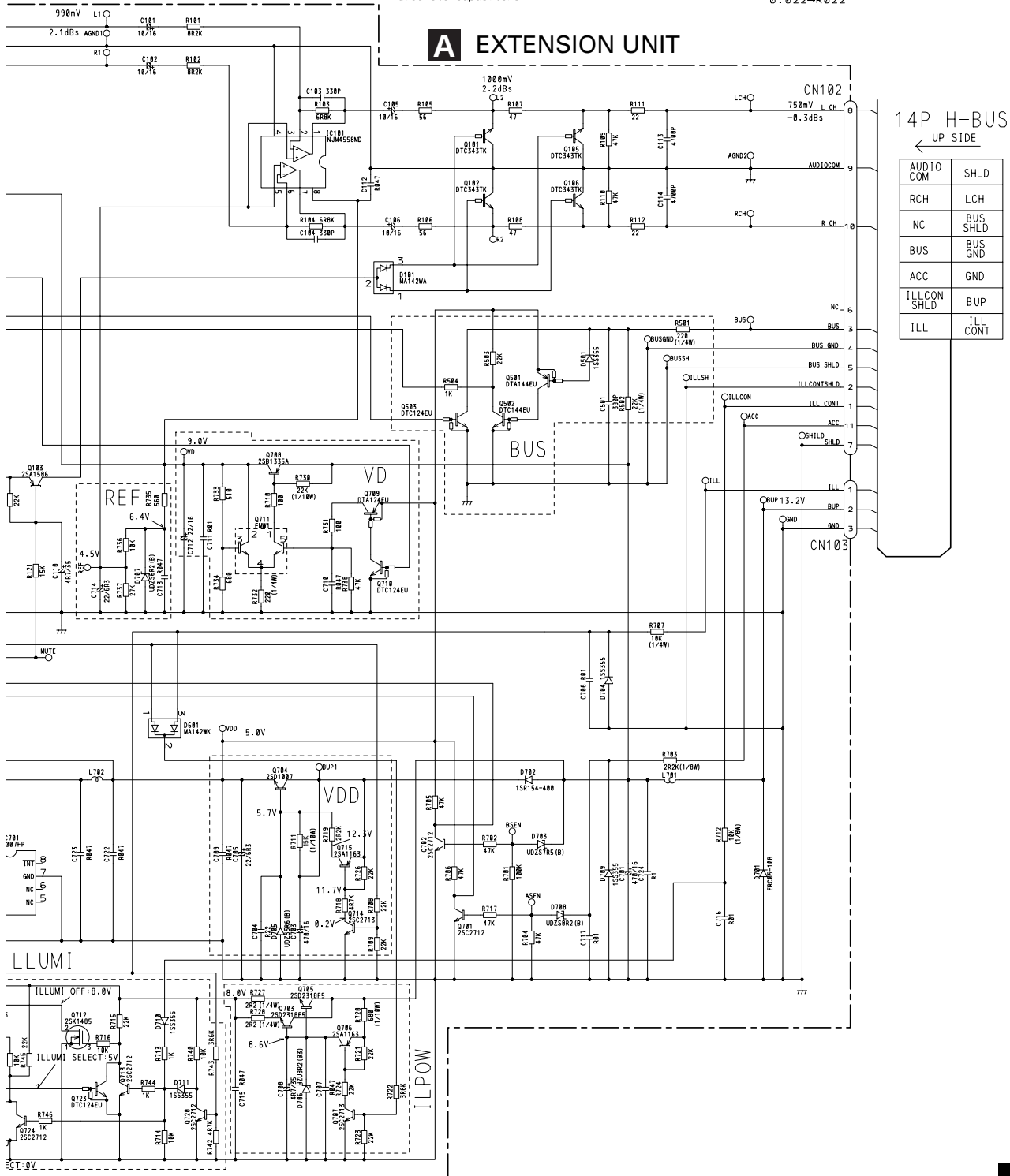
A-b

NOTE:

- Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
- |— Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

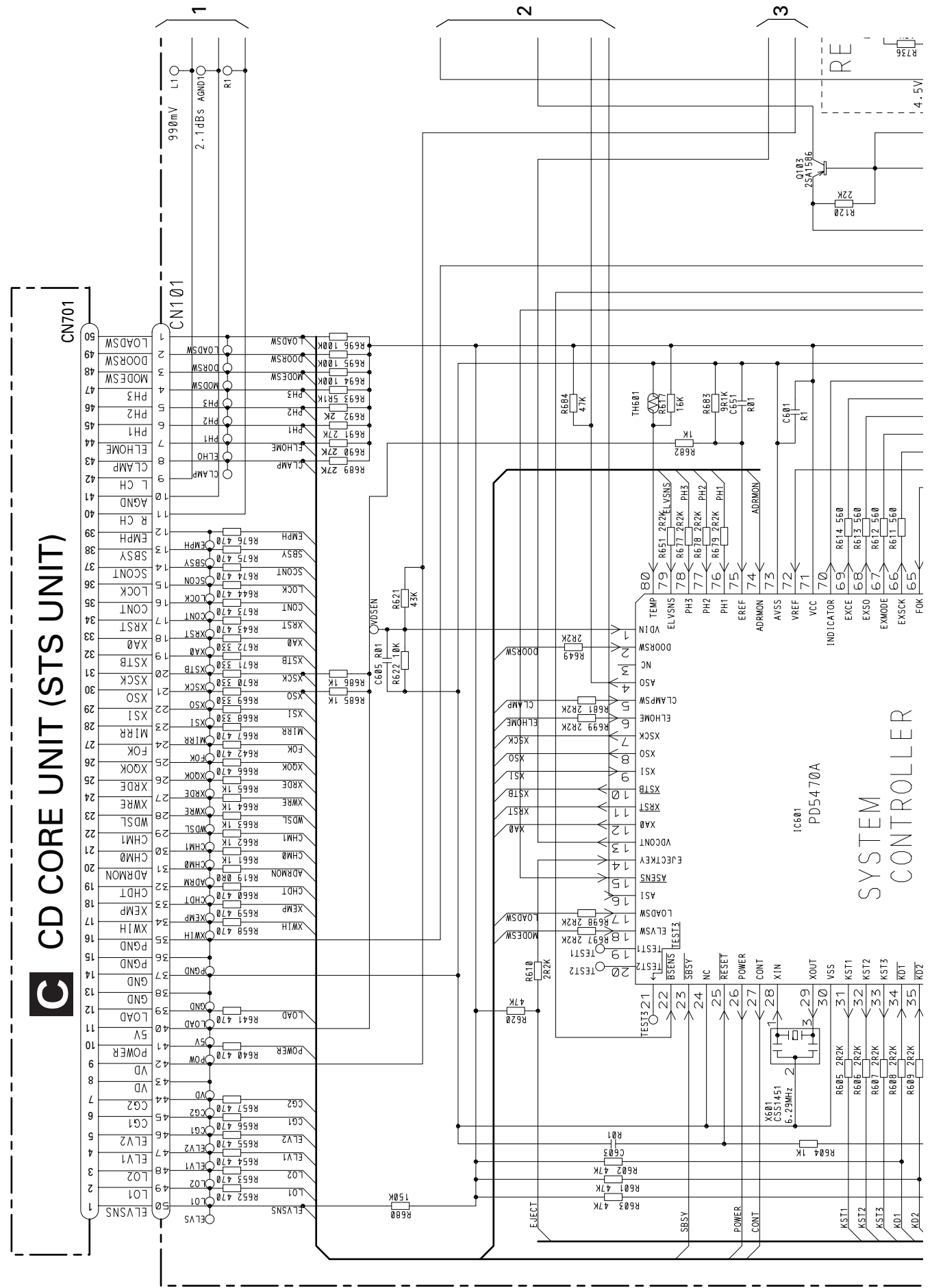
A EXTENSION UNIT



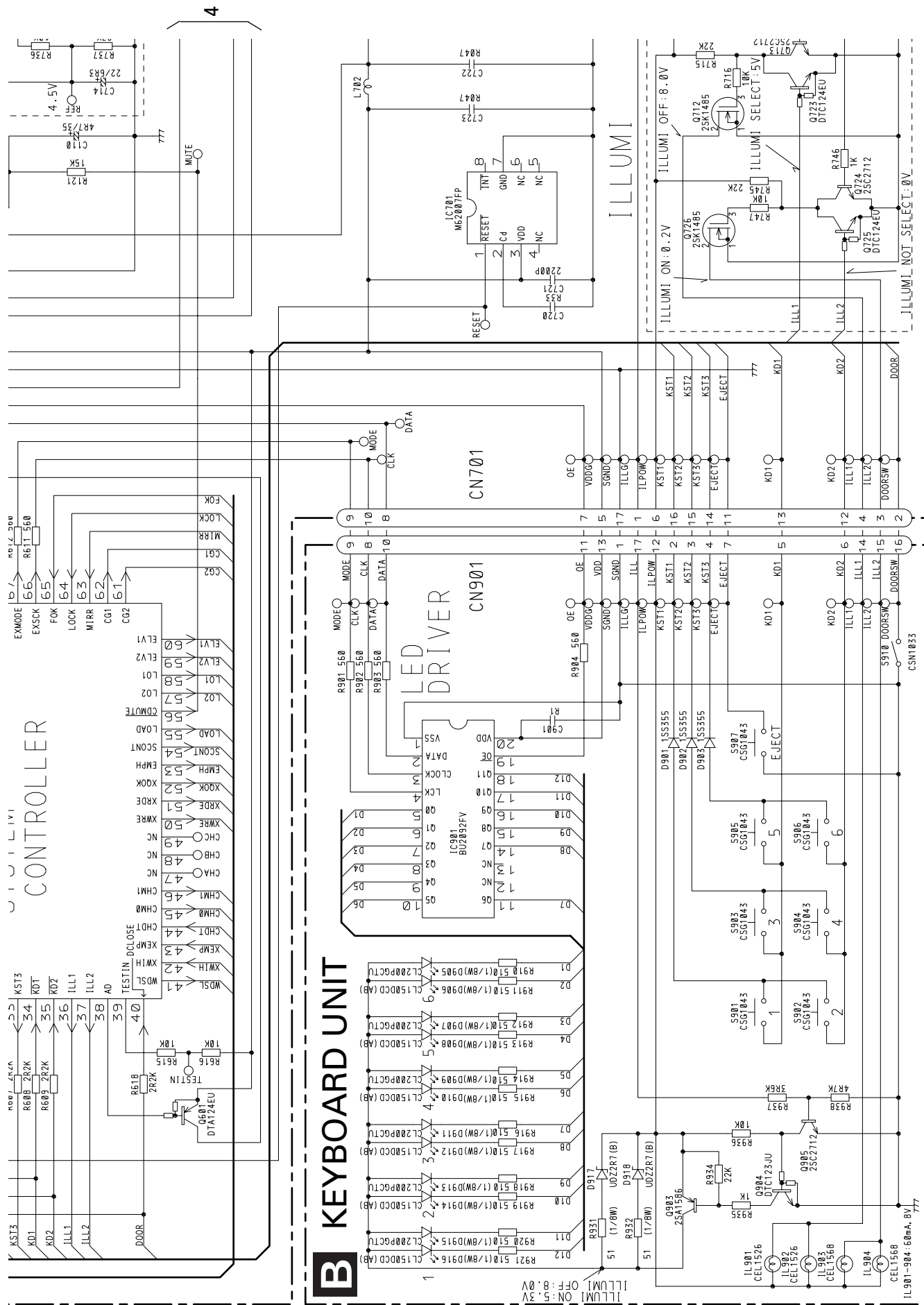
A

A-a A-b

CD CORE UNIT (STS UNIT)



A-a



A-a A-b

A

B

C

C

NOTE :

—□— Symbol indicates a resistor.

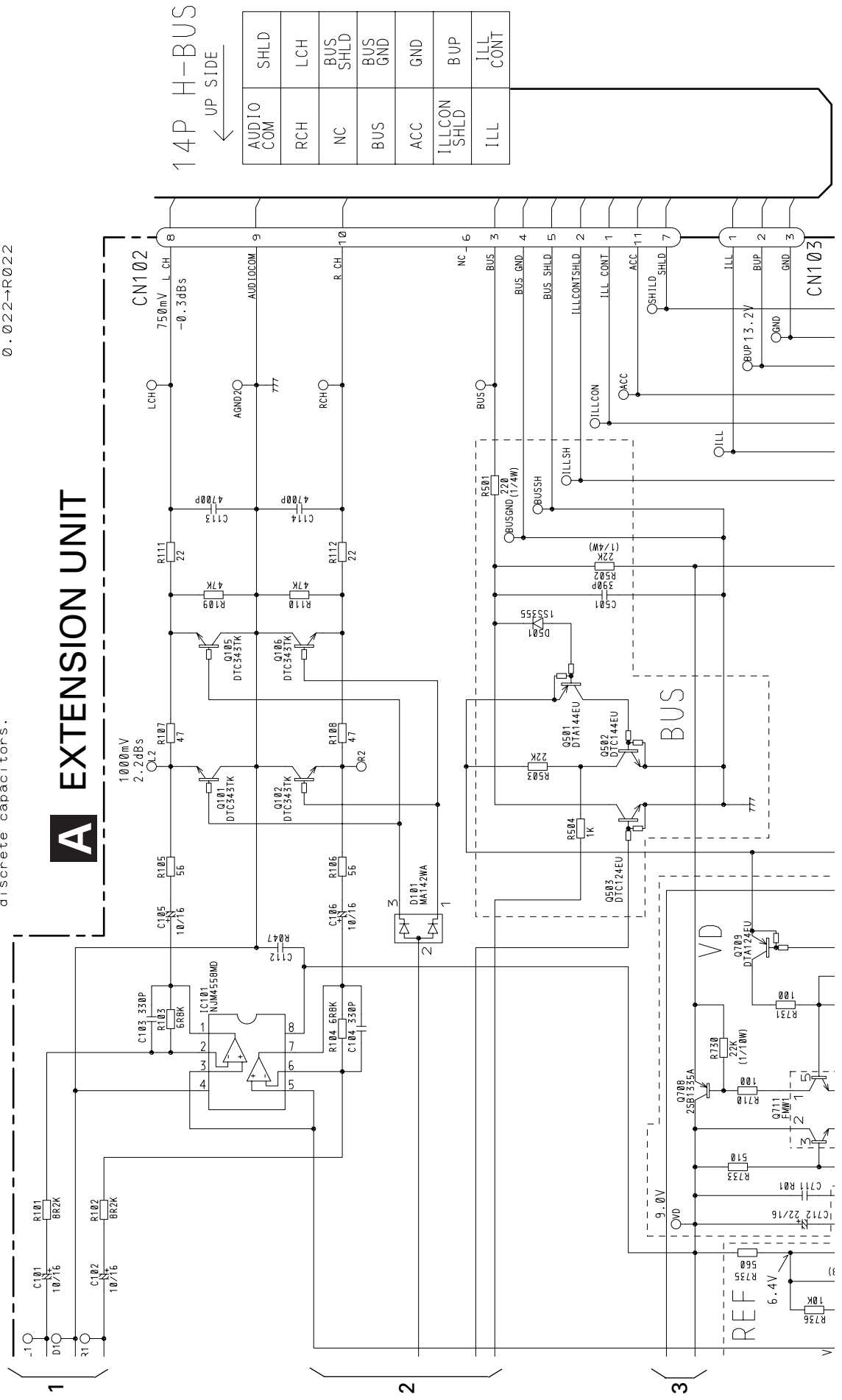
No differentiation is made between chip resistors and discrete resistors.

—|— Symbol indicates a capacitor.

No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

A EXTENSION UNIT



14P H-BUS
← UP SIDE

AUD I/O COM	SHLD
RCH	LCH
NC	BUS SHLD
BUS	BUS GND
ACC	GND
ILLCON SHLD	BUP
ILL	ILL CONT

REF

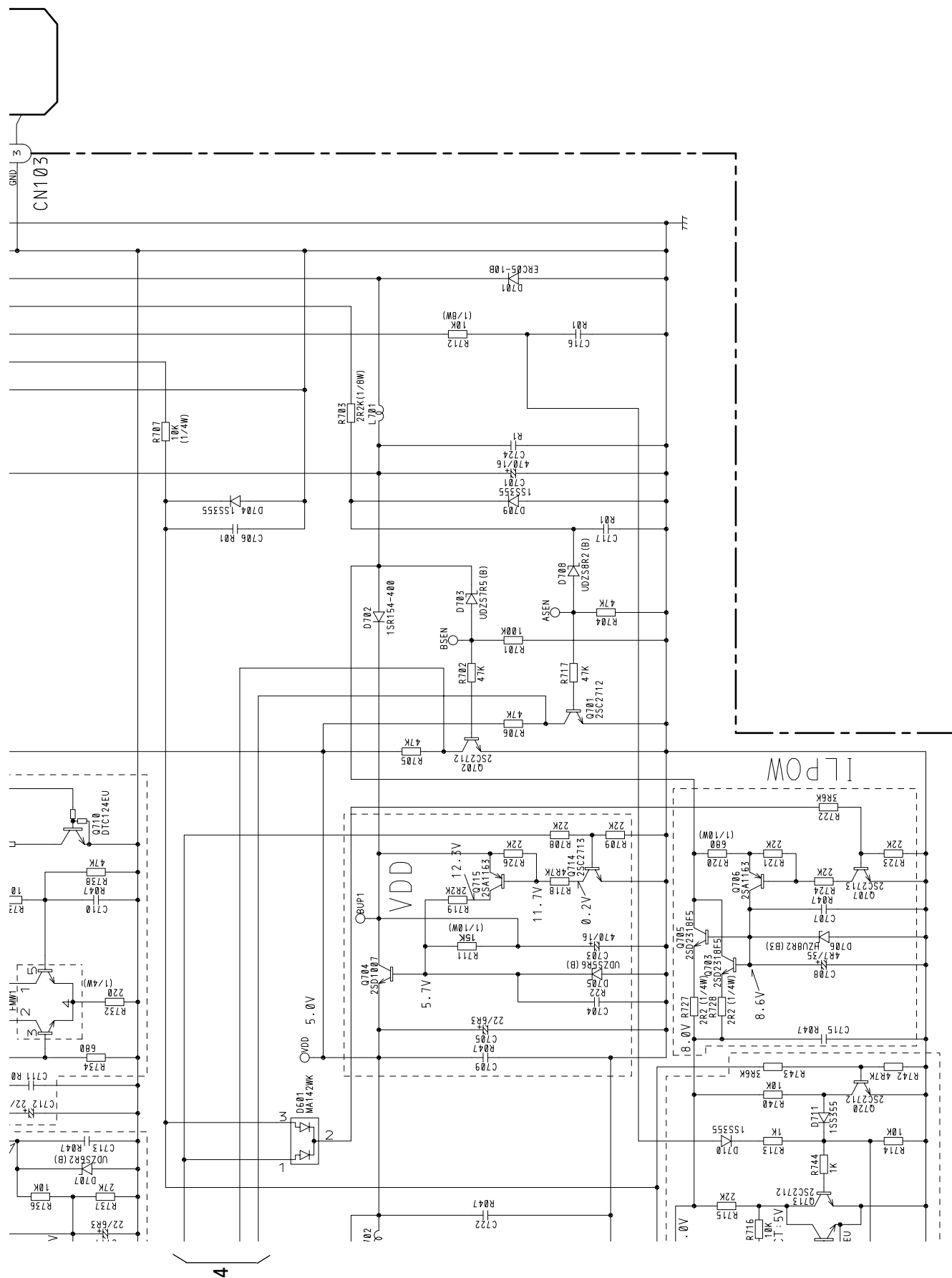
VD

BUS

1

2

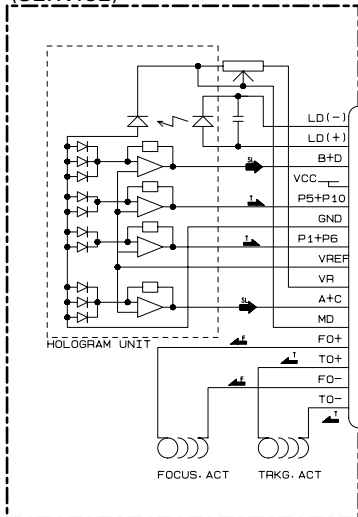
3



3.2 CD CORE UNIT(SERVO UNIT)

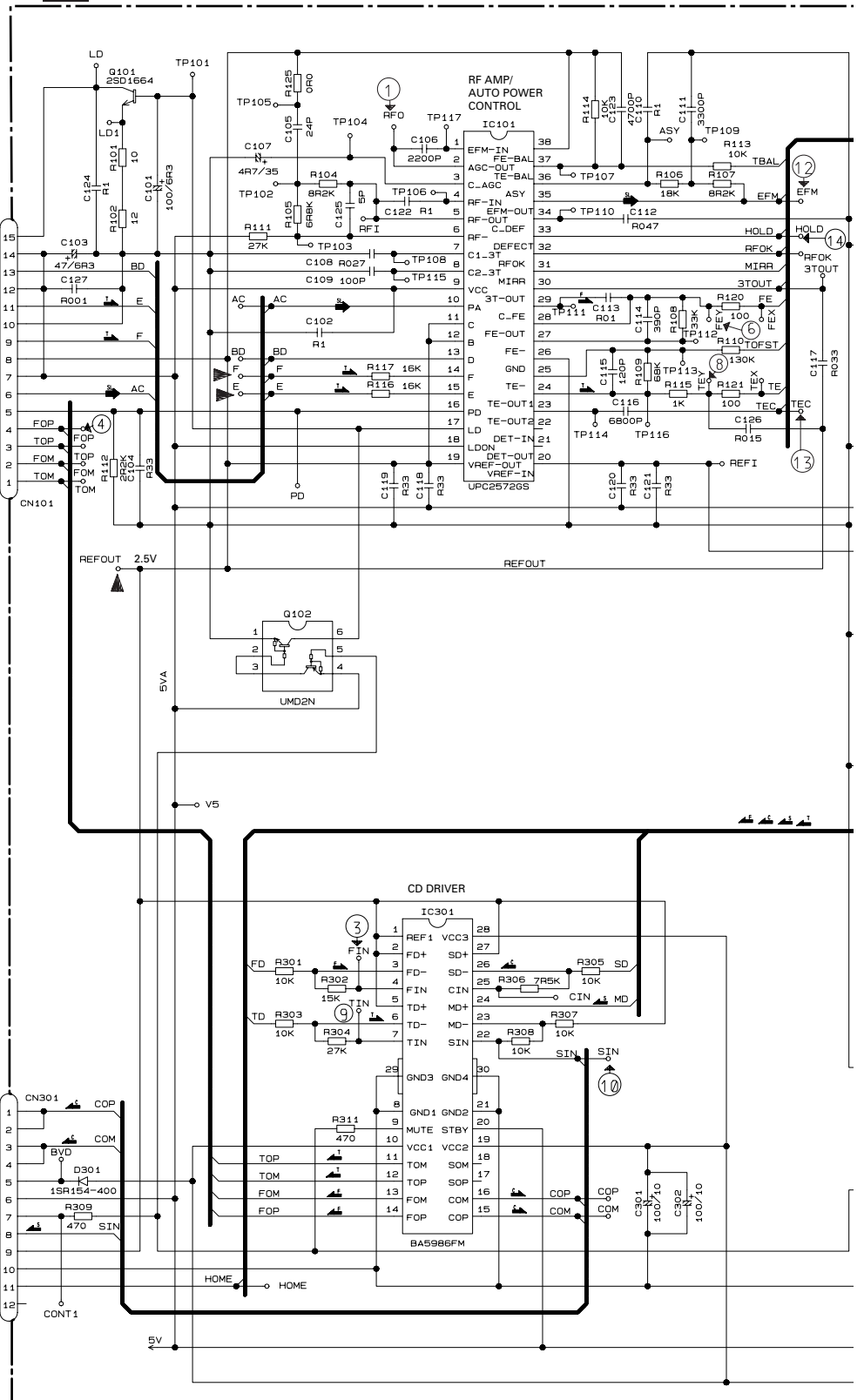
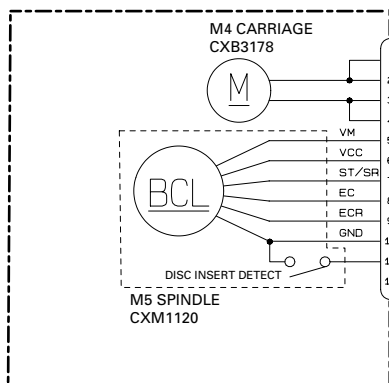
C CD CORE UNIT(SERVO UNIT)

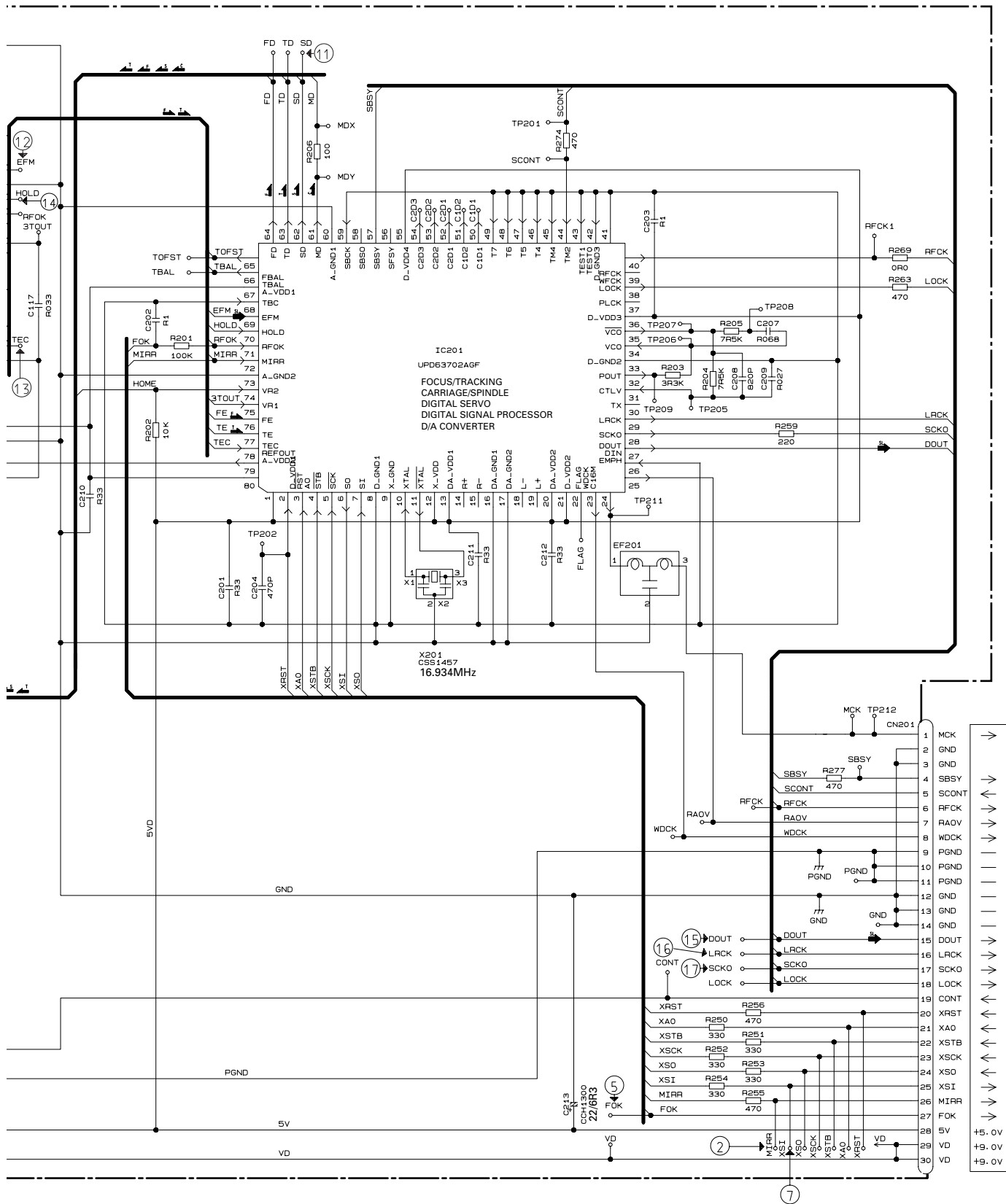
PICKUP UNIT
(SERVICE)



SIGNAL LINE
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE

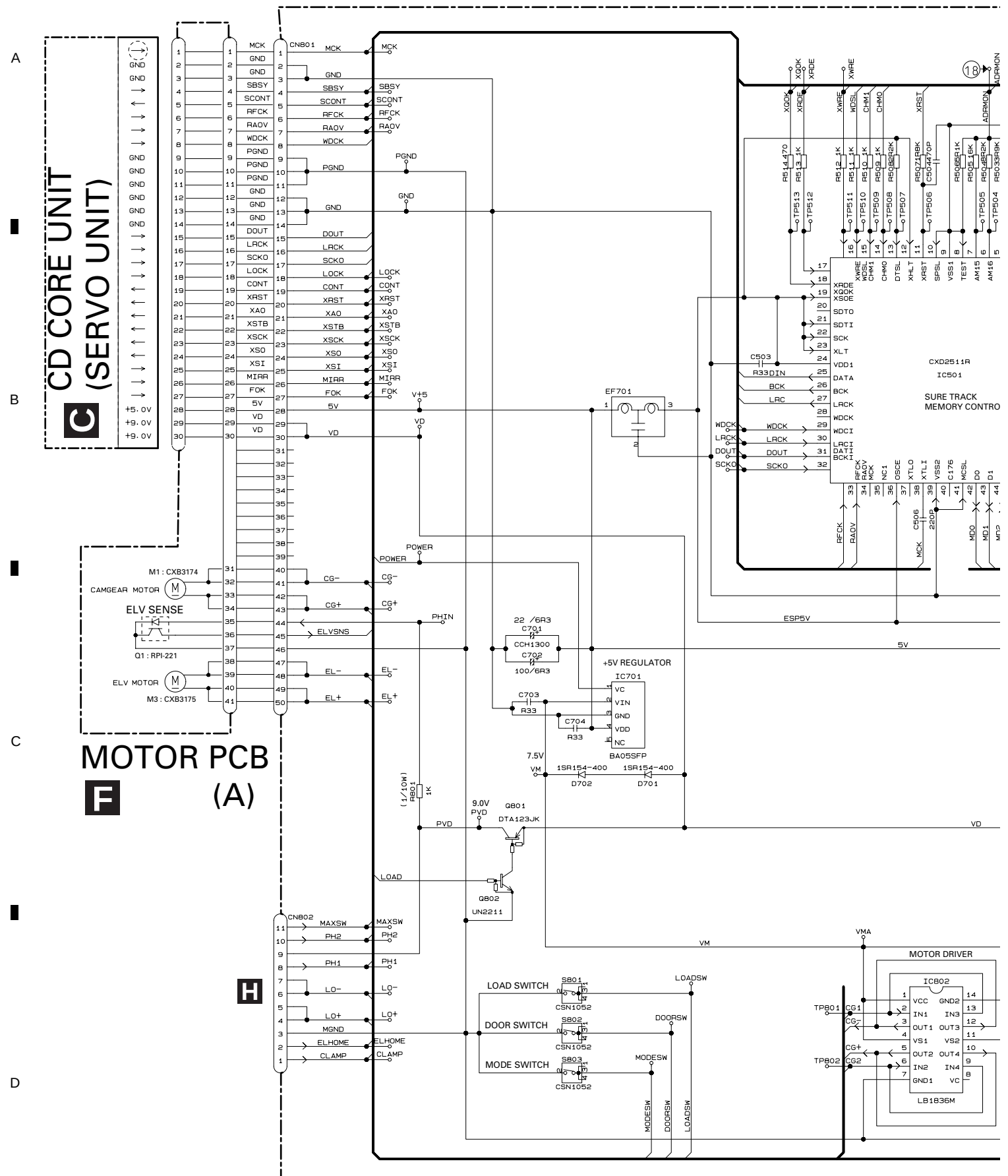
E MOTOR PCB(B)

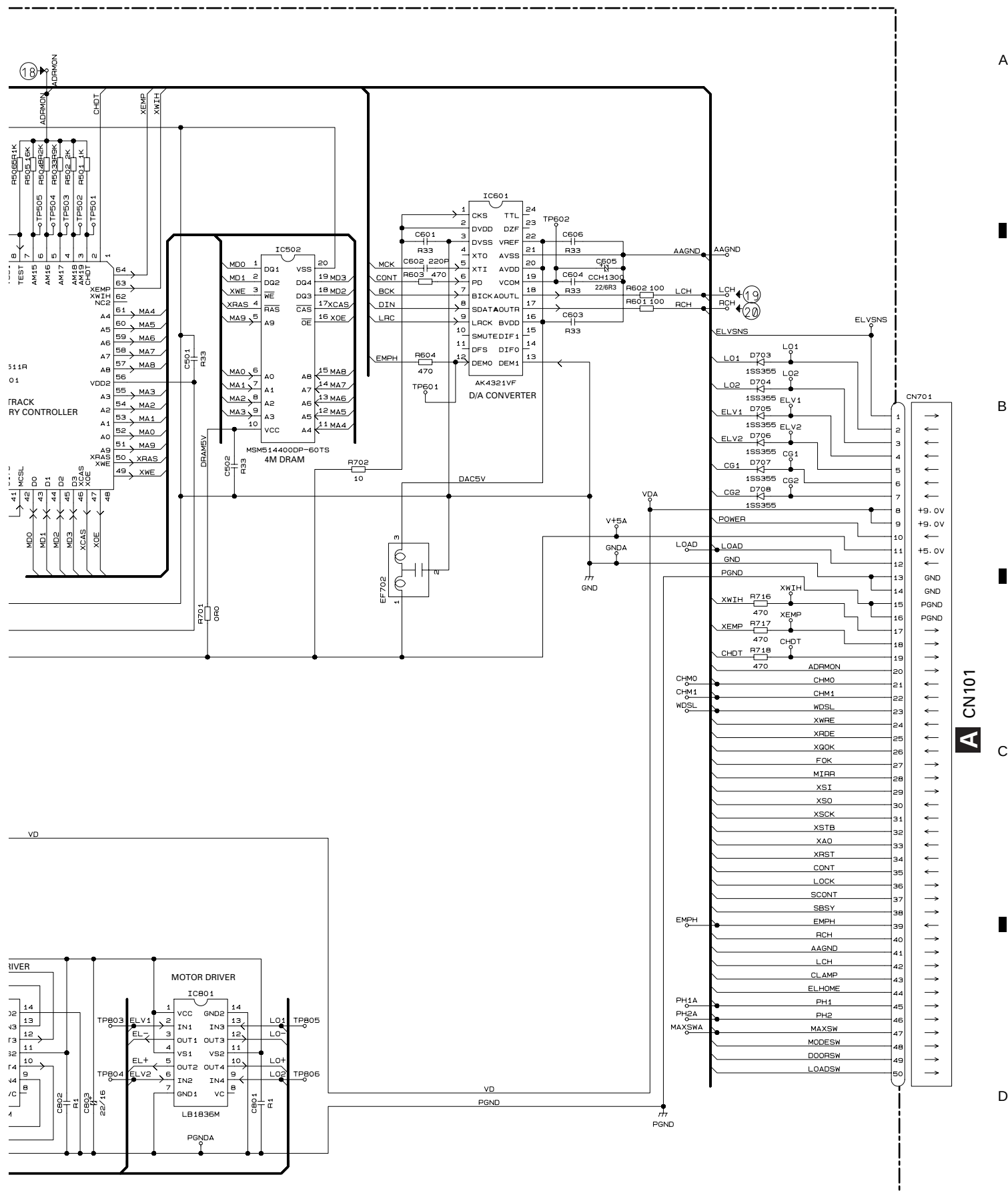




3.3 CD CORE UNIT(STS UNIT)

D CD CORE UNIT(STS UNIT)



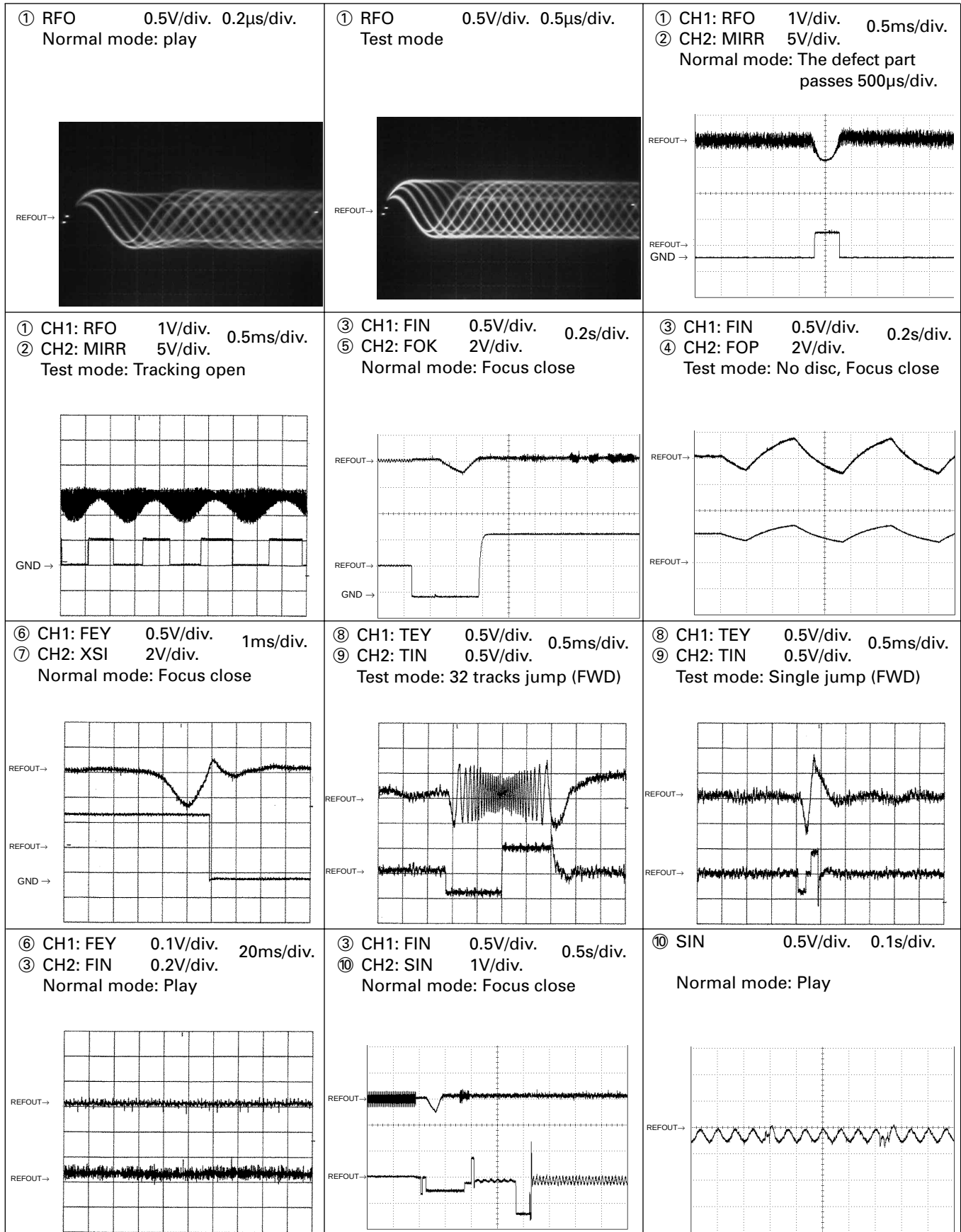


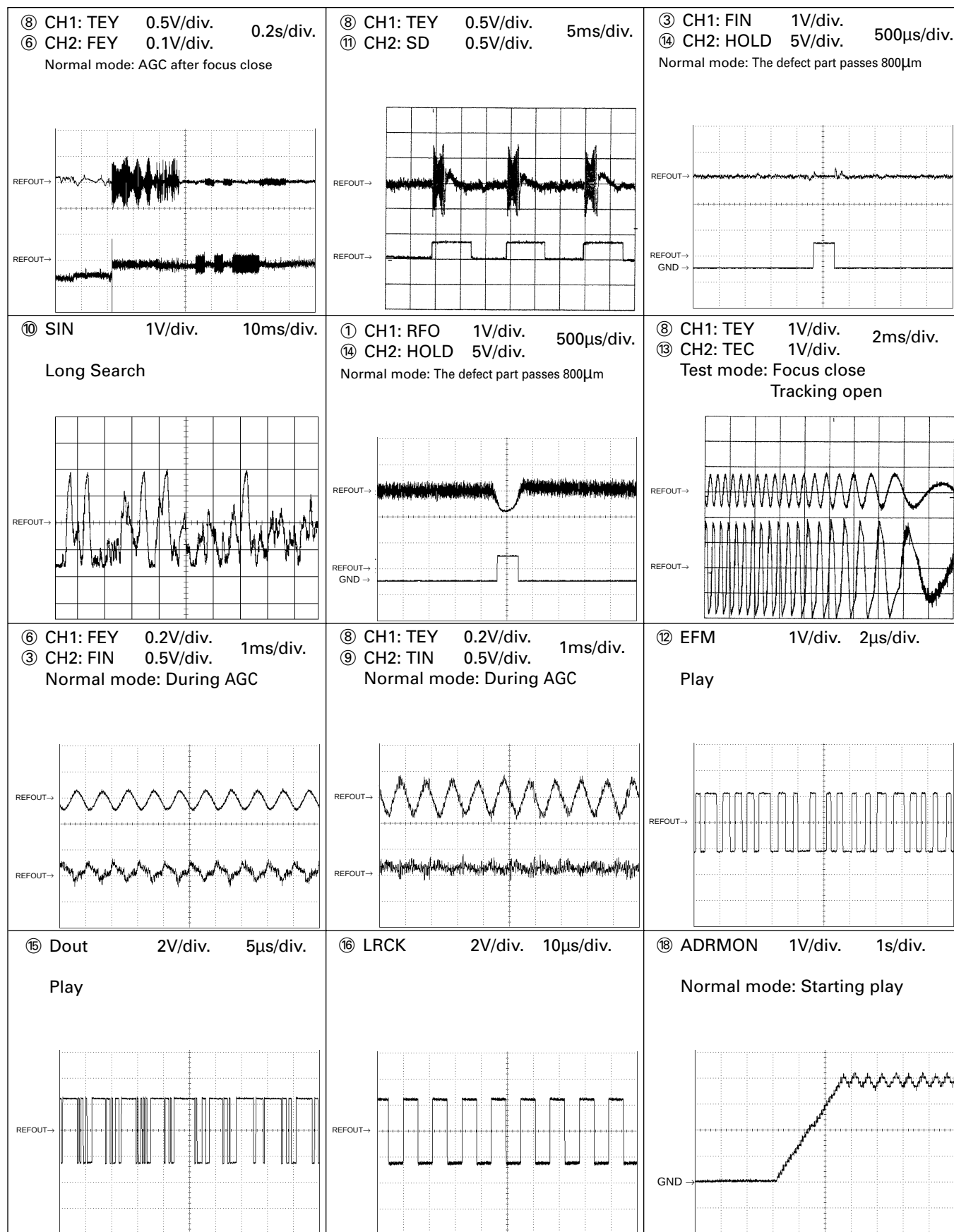
Note:1. The encircled numbers denote measuring pointes in the circuit diagram.

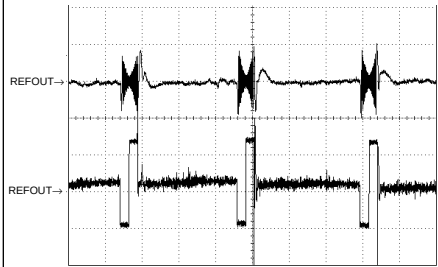
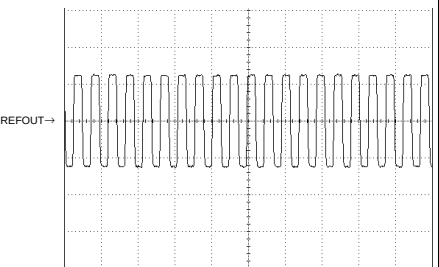
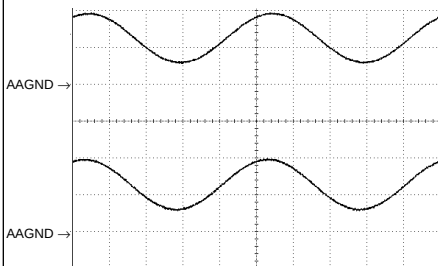
2. Reference voltage

REFOUT:2.5V

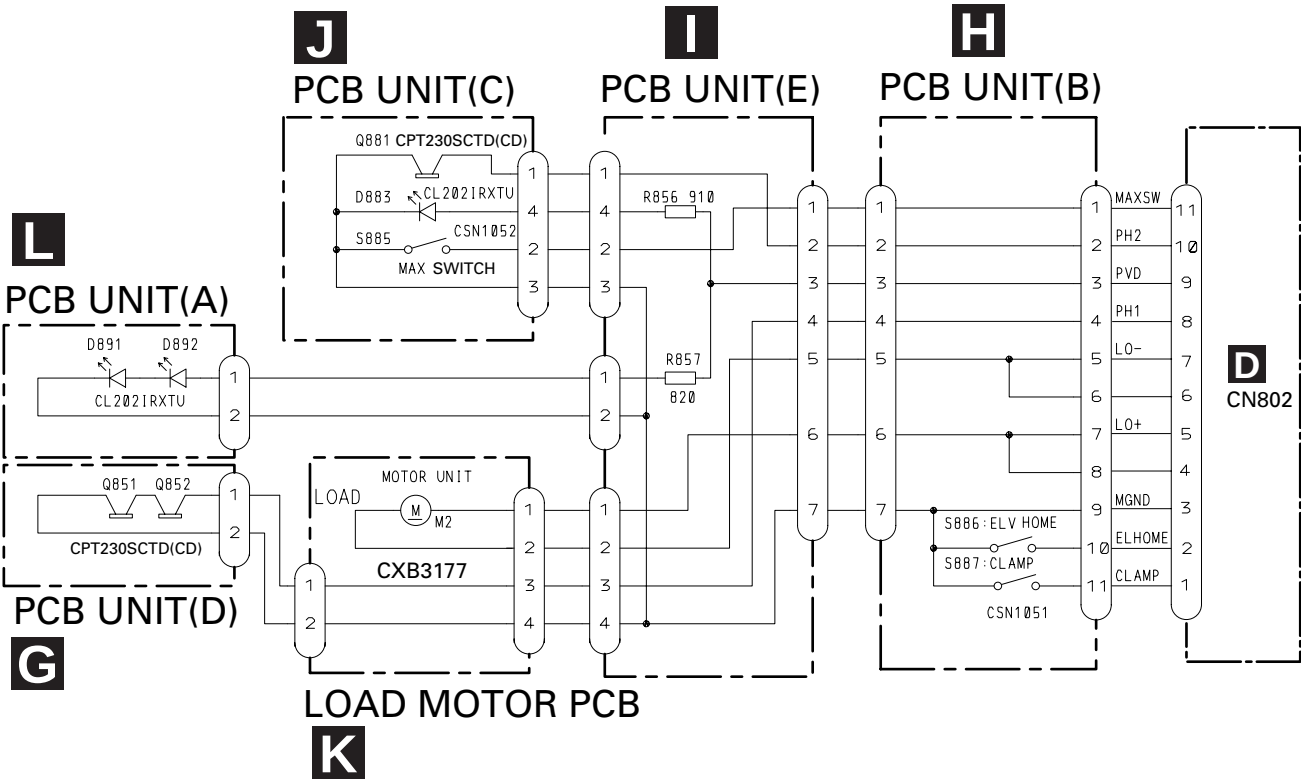
● Waveforms





⑧ CH1: TEY 0.5V/div. 5ms/div. ⑨ CH2: TIN 0.5V/div. Test mode: 100 tracks jump(FWD) 	⑧ CH1: TEY 0.5V/div. 10ms/div. ⑨ CH2: TIN 0.5V/div. Normal mode: Play 	⑰ SCKO 2V/div. 500ns/div. Play 
⑳ CH1: RCH 2V/div. 200μs/div. ㉑ CH2: LCH 2V/div. Normal mode: PLAY (0dB,1kHz) 		

3.4 PCB UNIT(A,B,C,D,E), LOAD MOTOR PCB



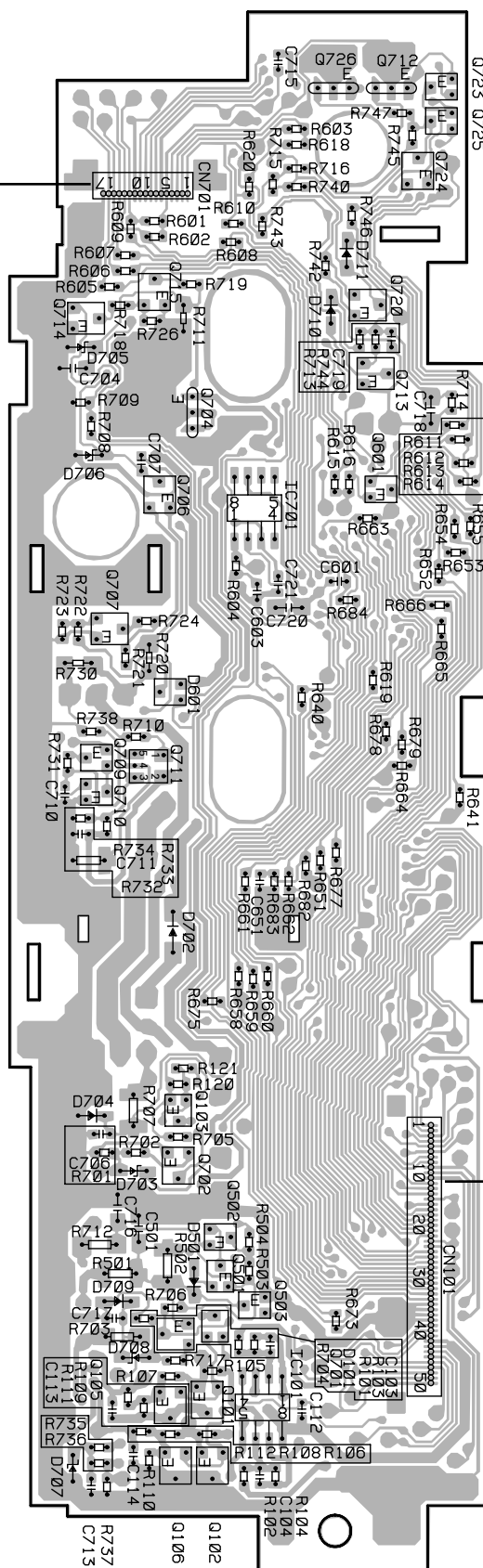
SIDE B

B CN901

D CN701

EXTENSION UNIT

A



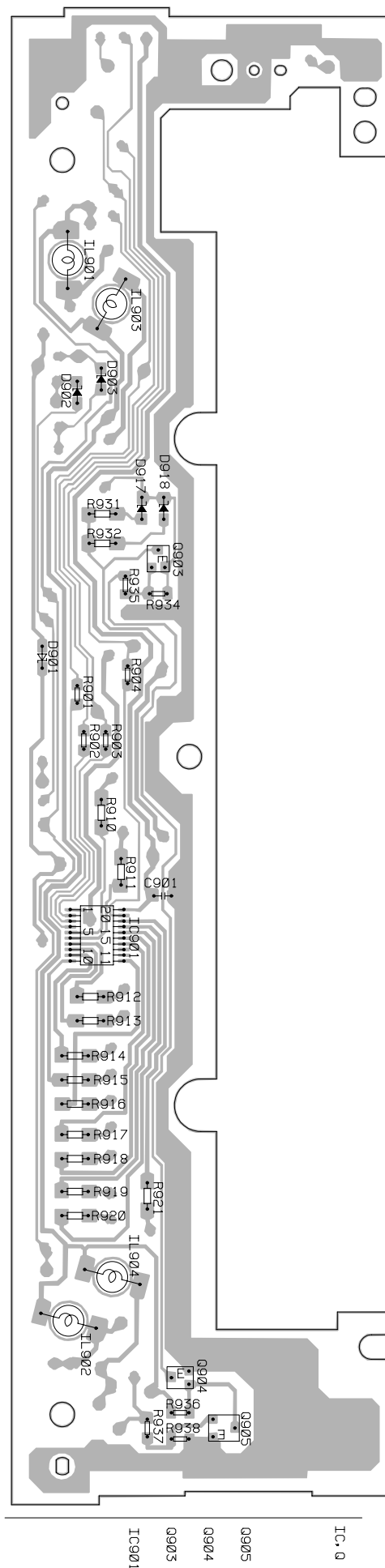
IC.0	0723	0725	0724	0720	0713	0712	0601	0701	0726	IC701	IC101	0503	0502	0501	0101	0704	0103	0706	0102	0715	0711	0106	0709	0710	0707	0105	0714
------	------	------	------	------	------	------	------	------	------	-------	-------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

KEYBOARD PCB



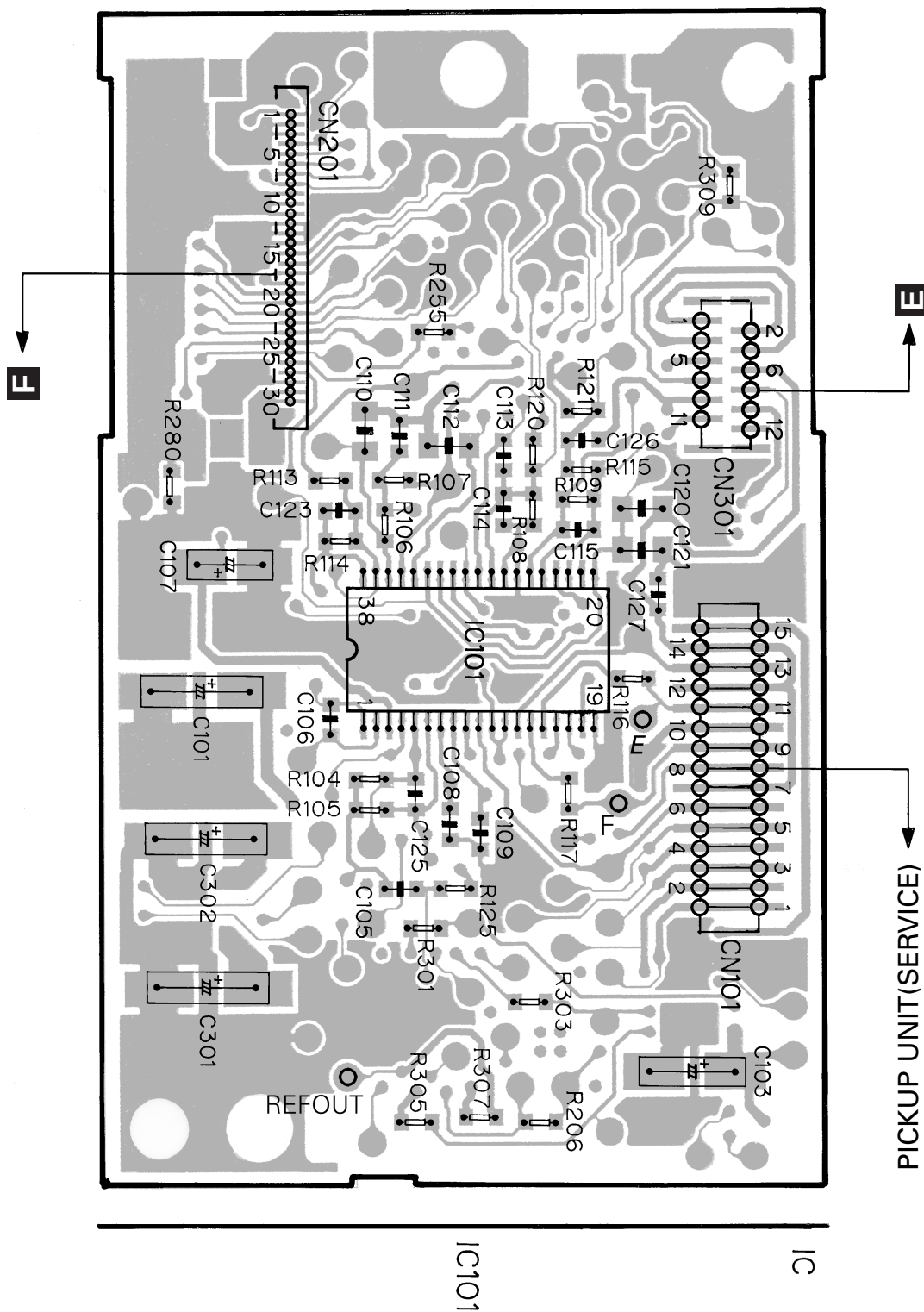
SIDE B

B KEYBOARD PCB

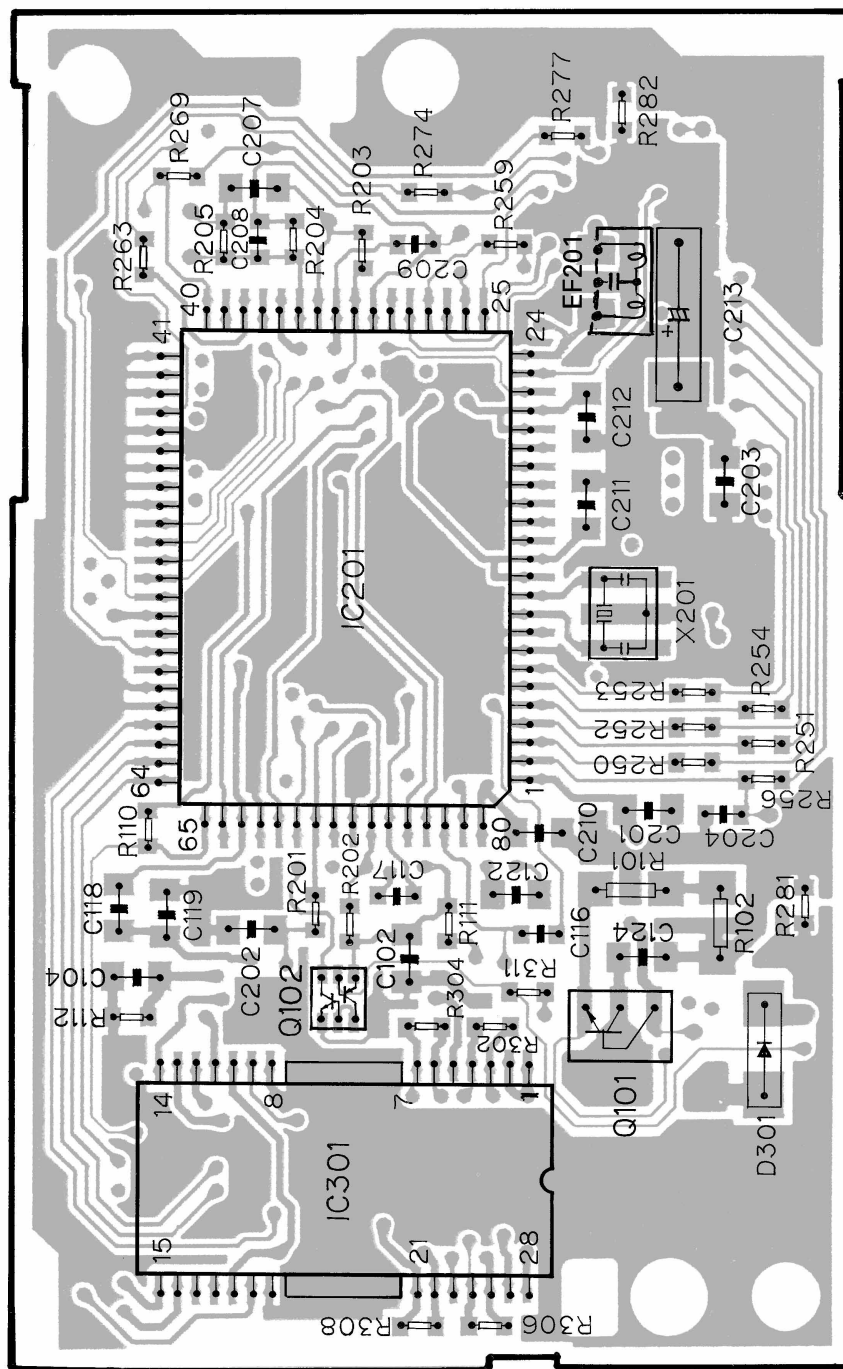


30

PICKUP UNIT(SERVICE)



C CD CORE UNIT(SERVO UNIT)



IC, Q

IC301

Q102

IC201

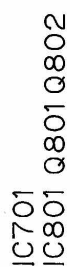
Q101

SIDE B

4.4 CD CORE UNIT(STS UNIT)

D CD CORE UNIT(STS UNIT)

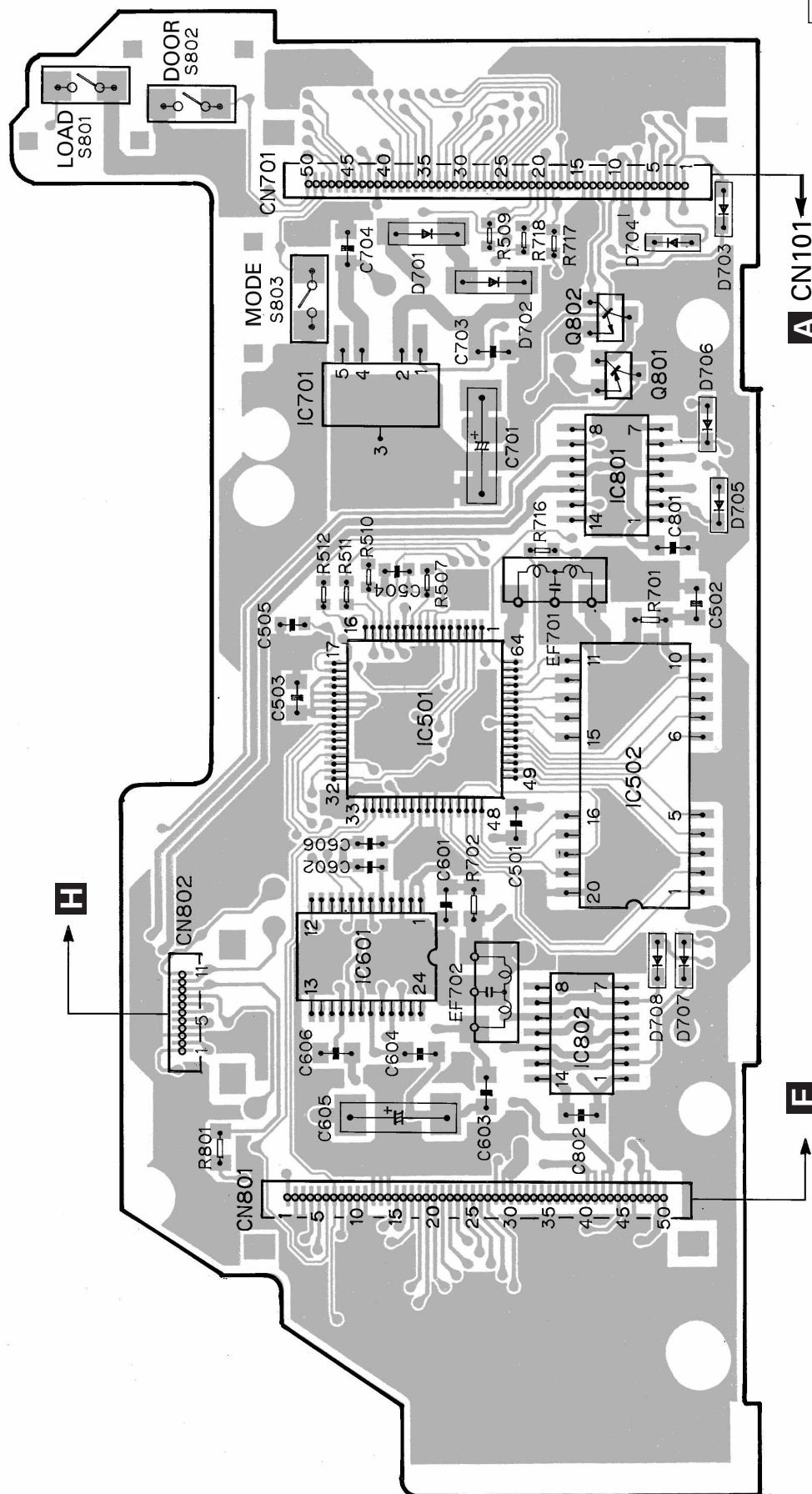
SIDE A



IC501
IC502

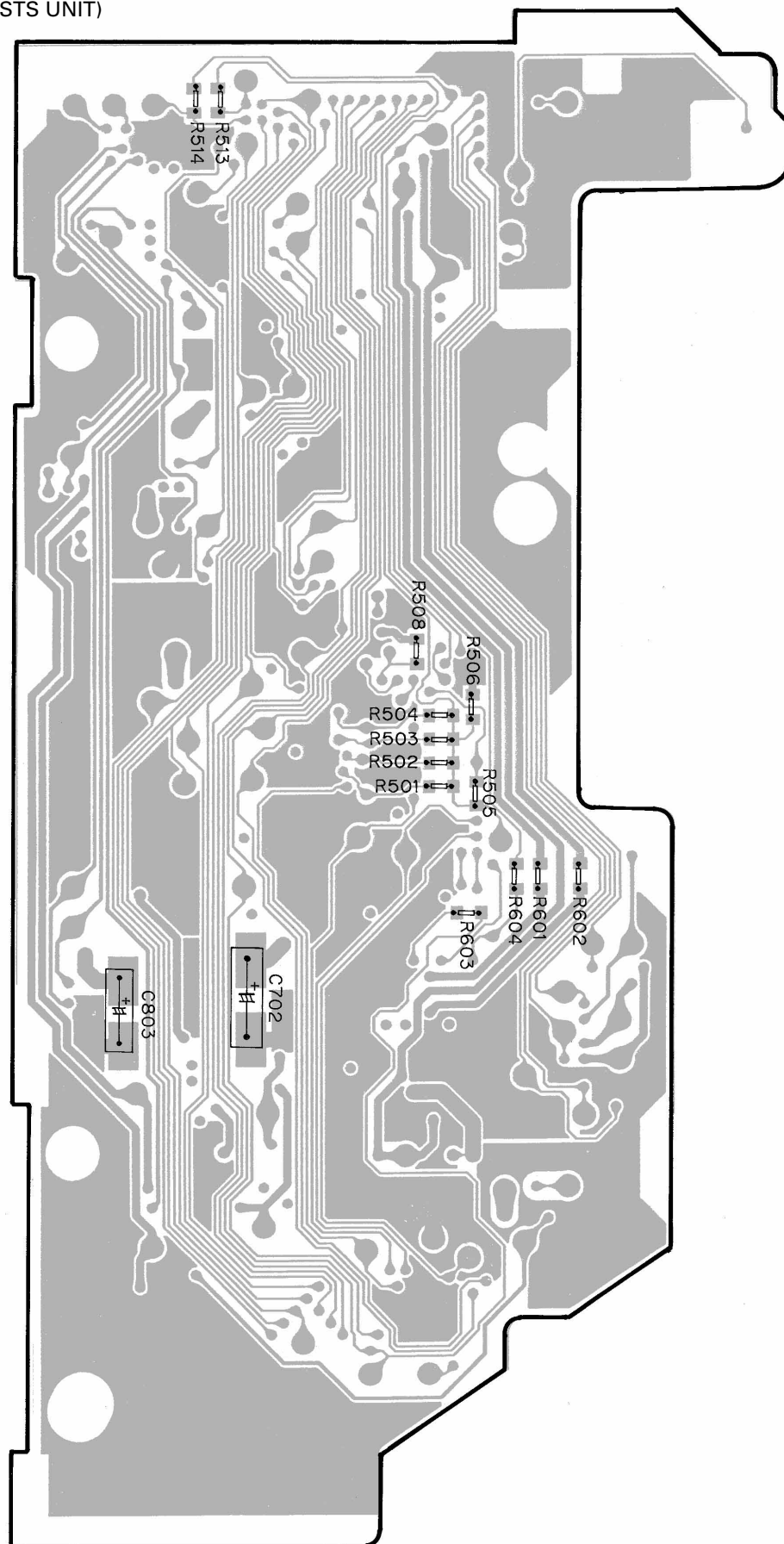
IC802 IC601

IC. Q



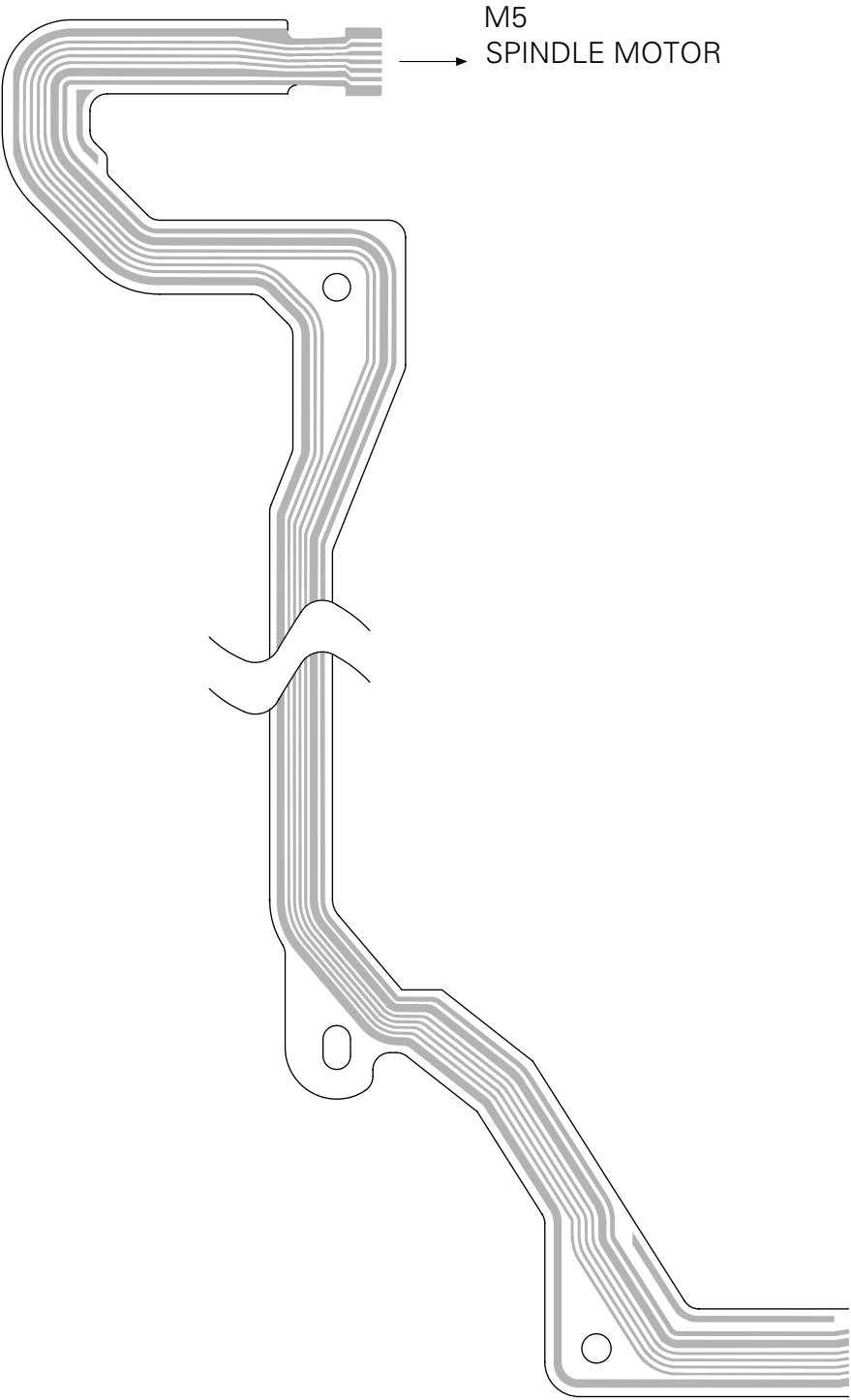
A CN101-

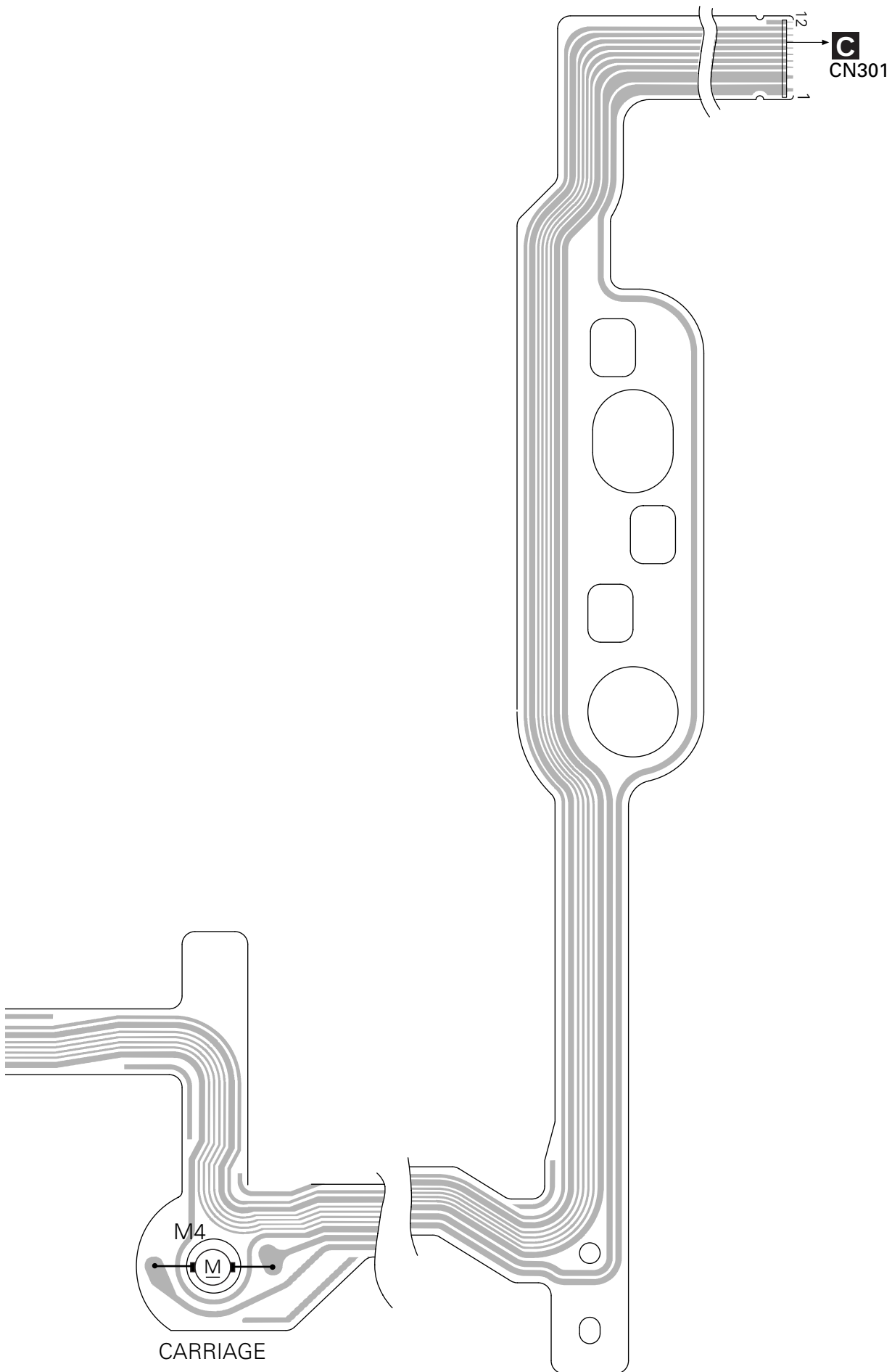
W

D CD CORE UNIT(STS UNIT)**SIDE B**

4.5 MOTOR PCB(B)

E MOTOR PCB(B)

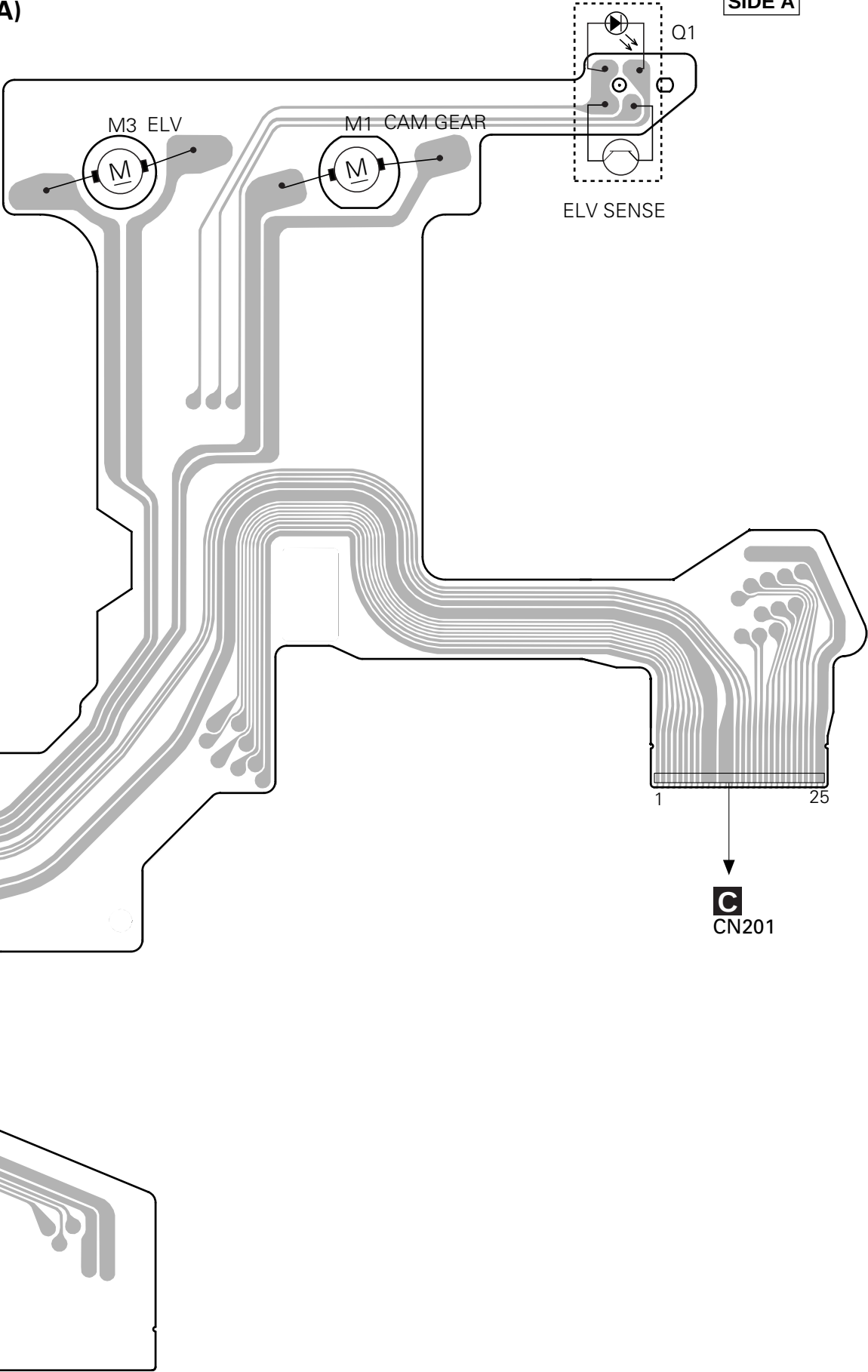




4.6 MOTOR PCB(A)

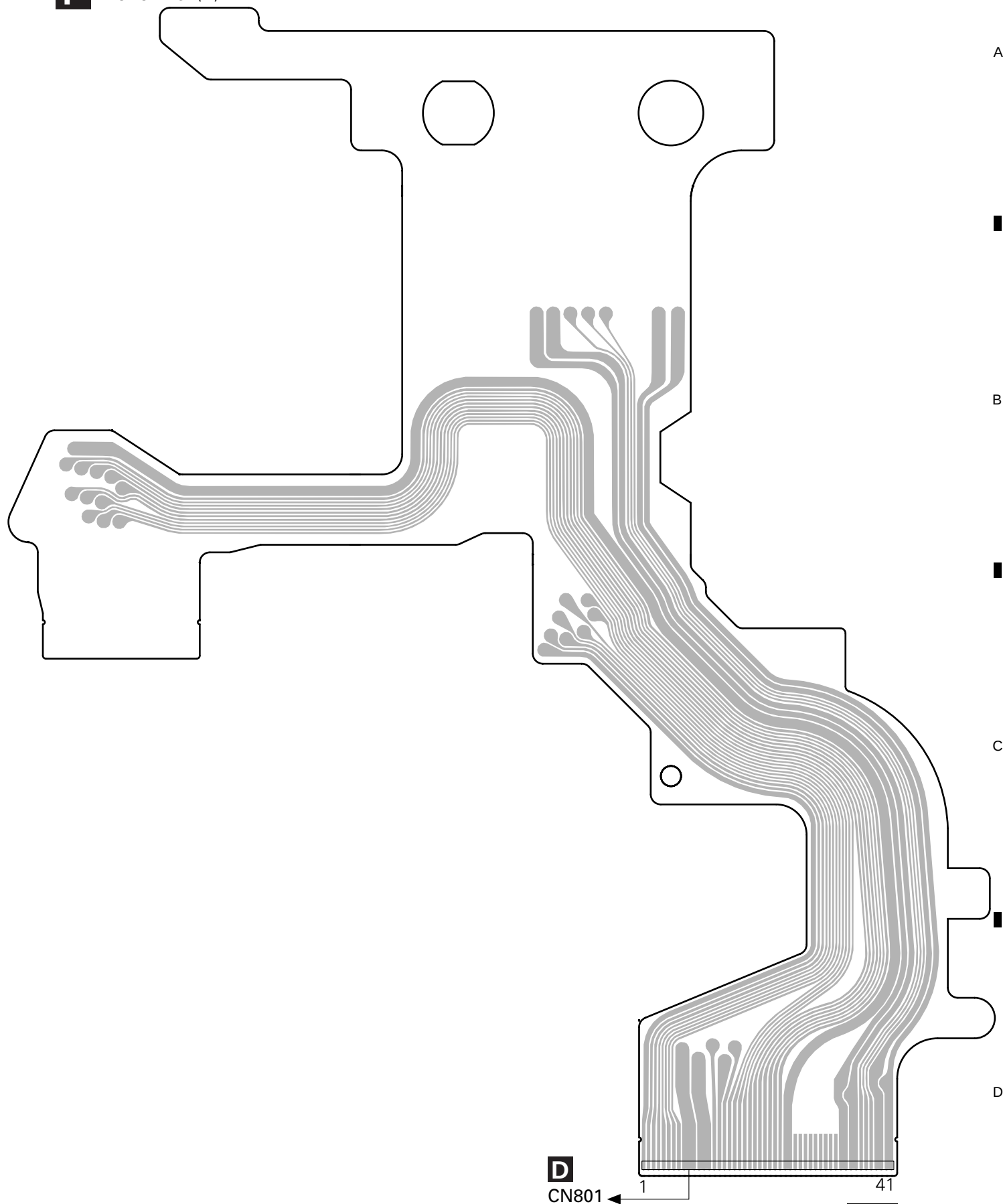
F MOTOR PCB(A)

SIDE A



SIDE B

F MOTOR PCB(A)



D
CN801

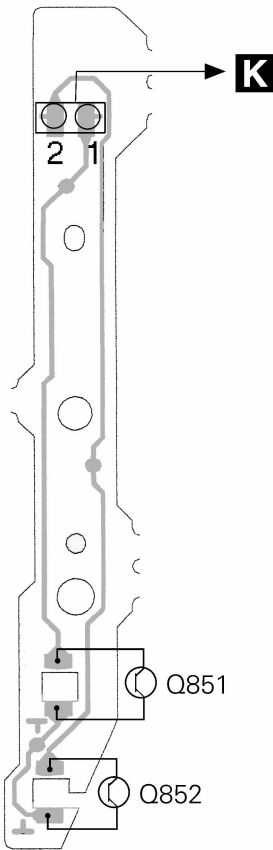
F

4.7 PCB UNIT(D)

4.8 PCB UNIT(B)

A

G PCB UNIT(D)

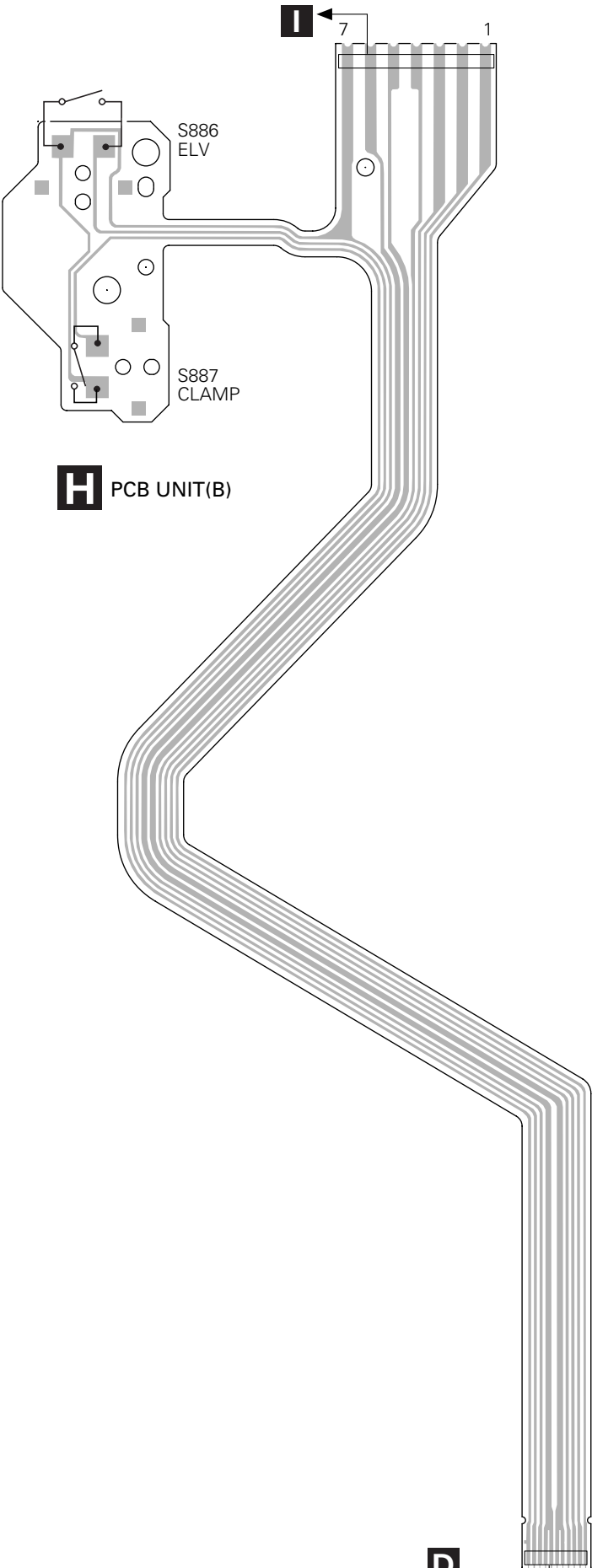


B

C

D

I



H

PCB UNIT(B)

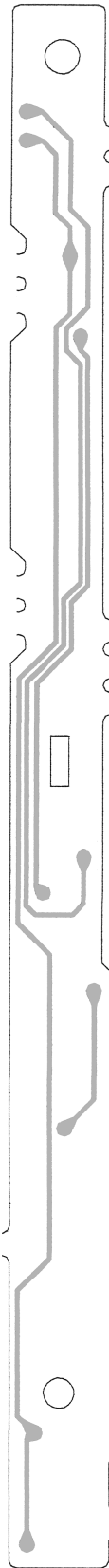
D

CN802



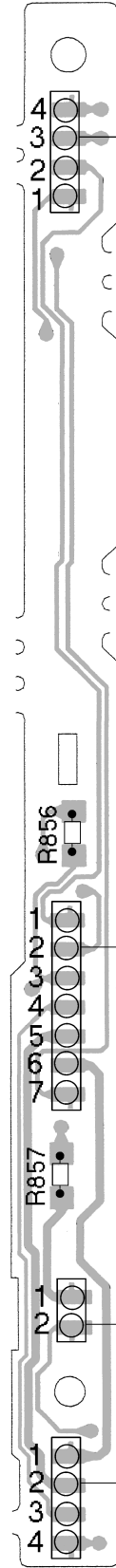
4.9 PCB UNIT(E)

PCB UNIT(E)



SIDE A

PCB UNIT(E)



SIDE B

J

H

L

K

R856

1
2
3
4
5
6
7

R857

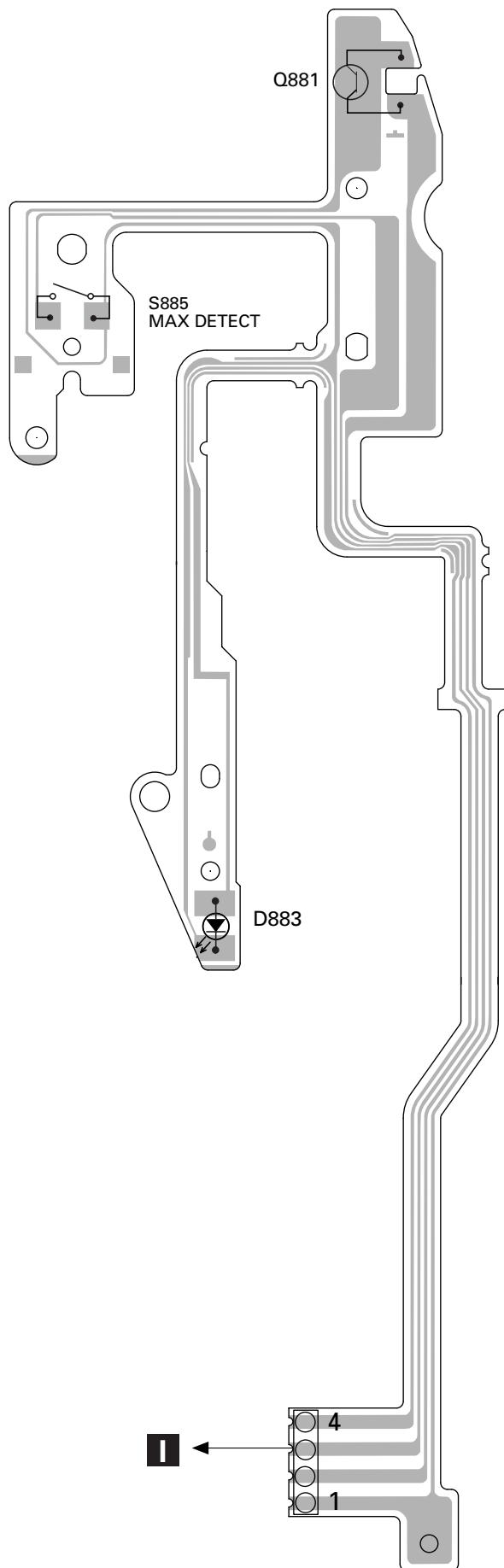
1
2

1
2
3
4

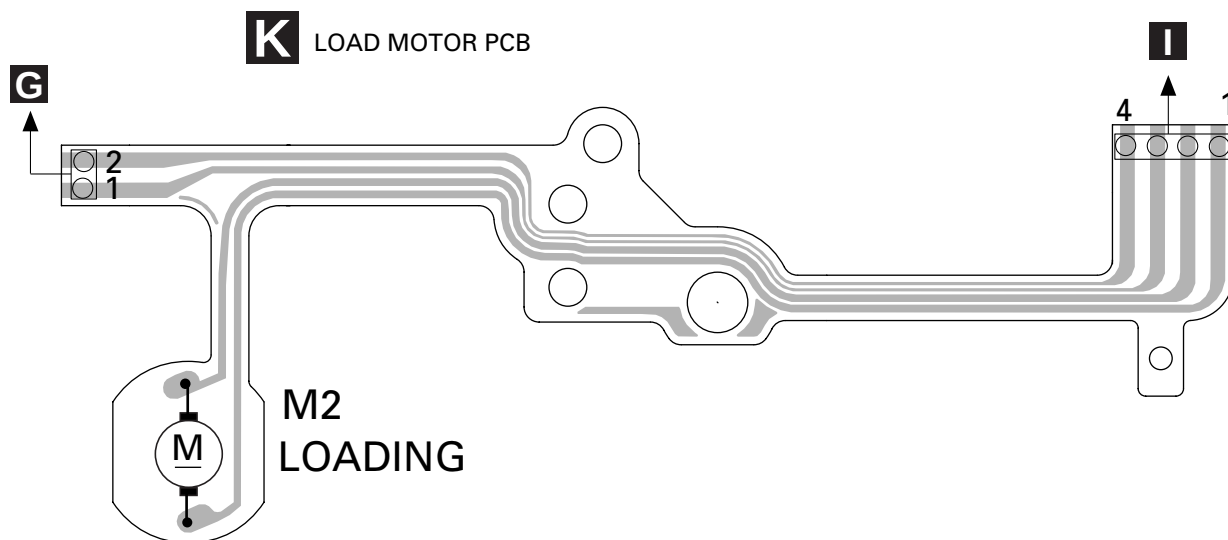
4.10 PCB UNIT(C)

J

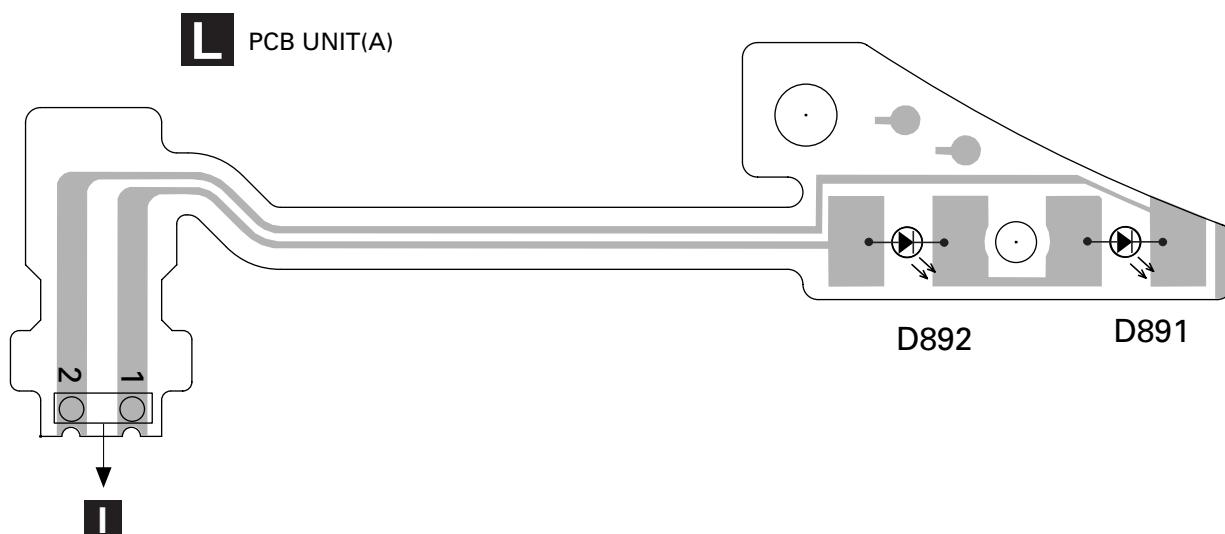
PCB UNIT(C)



4.11 LOAD MOTOR PCB



4.12 PCB UNIT(A)



5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor
RS1/○S○○○○J,RS1/○○S○○○J
Chip Capacitor (except for CQS.....)
CKS....., CCS....., CSZS.....

====Circuit Symbol and No.==Part Name			Part No.	====Circuit Symbol and No.==Part Name			Part No.
A Unit Number : CWM6288 Unit Name : Extension Unit				RESISTORS			
MISCELLANEOUS							
IC	101	IC	NJM4558MD	R	101		RS1/16S822J
IC	601	IC	PD5470A	R	102		RS1/16S822J
IC	701	IC	M62007FP	R	103		RS1/16S682J
Q	101	Transistor	DTC343TK	R	104		RS1/16S682J
Q	102	Transistor	DTC343TK	R	105		RS1/16S560J
Q	103	Transistor	2SA1586	R	106		RS1/16S560J
Q	105	Transistor	DTC343TK	R	107		RS1/16S470J
Q	106	Transistor	DTC343TK	R	108		RS1/16S470J
Q	501	Transistor	DTA144EU	R	109		RS1/16S473J
Q	502	Transistor	DTC144EU	R	110		RS1/16S473J
Q	503	Transistor	DTC124EU	R	111		RS1/16S220J
Q	601	Transistor	DTA124EU	R	112		RS1/16S220J
Q	701	Chip Transistor	2SC2712	R	120		RS1/16S223J
Q	702	Chip Transistor	2SC2712	R	121		RS1/16S153J
Q	703	Transistor	2SD2318F5	R	501		RS1/4S221J
Q	704	Transistor	2SD1007	R	502		RS1/4S223J
Q	705	Transistor	2SD2318F5	R	503		RS1/16S223J
Q	706	Transistor	2SA1163	R	504		RS1/16S102J
Q	707	Transistor	2SC2713	R	601		RS1/16S473J
Q	708	Transistor	2SB1335A	R	602		RS1/16S473J
Q	709	Transistor	DTA124EU	R	603		RS1/16S473J
Q	710	Transistor	DTC124EU	R	604		RS1/16S102J
Q	711	Transistor	FMW1	R	605		RS1/16S222J
Q	712	Transistor	2SK1485	R	606		RS1/16S222J
Q	713	Chip Transistor	2SC2712	R	607		RS1/16S222J
Q	714	Transistor	2SC2713	R	608		RS1/16S222J
Q	715	Transistor	2SA1163	R	609		RS1/16S222J
Q	720	Chip Transistor	2SC2712	R	610		RS1/16S222J
Q	723	Transistor	DTC124EU	R	611		RS1/16S561J
Q	724	Chip Transistor	2SC2712	R	612		RS1/16S561J
Q	725	Transistor	DTC124EU	R	613		RS1/16S561J
Q	726	Transistor	2SK1485	R	614		RS1/16S561J
D	101	Diode	MA142WA	R	615		RS1/16S103J
D	501	Diode	1SS355	R	616		RS1/16S103J
D	601	Diode	MA142WK	R	617		RS1/16S163J
D	701	Diode	ERC05-10B	R	618		RS1/16S222J
D	702	Diode	1SR154-400	R	619		RS1/16S0R0J
D	703	Diode	UDZS7R5(B)	R	620		RS1/16S473J
D	704	Diode	1SS355	R	621		RS1/16S433J
D	705	Diode	UDZS5R6(B)	R	622		RS1/16S103J
D	706	Diode	HZU8R2(B3)	R	640		RS1/16S471J
D	707	Diode	UDZS6R2(B)	R	641		RS1/16S471J
D	708	Diode	UDZS8R2(B)	R	642		RS1/16S471J
D	709	Diode	1SS355	R	643		RS1/16S471J
D	710	Diode	1SS355	R	644		RS1/16S471J
D	711	Diode	1SS355	R	649		RS1/16S222J
L	701	Coil	CTH1190	R	651		RS1/16S222J
L	702	Inductor	LCTB100K2125	R	652		RS1/16S471J
TH	601	Thermistor	CCX1032	R	653		RS1/16S471J
X	601	Radiator 6.290MHz	CSS1451	R	654		RS1/16S471J
				R	655		RS1/16S471J
				R	656		RS1/16S471J
				R	657		RS1/16S471J
				R	658		RS1/16S471J
				R	659		RS1/16S471J

[illegible]

====Circuit Symbol and No.==Part Name			Part No.	====Circuit Symbol and No.==Part Name			Part No.
D	908	LED	CL150DCD(AB)	R	107	RS1/16S822J	
D	909	LED	CL200PGCTU	R	108	RS1/16S333J	
D	910	LED	CL150DCD(AB)	R	109	RS1/16S683J	
D	911	LED	CL200PGCTU	R	110	RS1/16S134J	
D	912	LED	CL150DCD(AB)	R	111	RS1/16S273J	
D	913	LED	CL200PGCTU	R	112	RS1/16S222J	
D	914	LED	CL150DCD(AB)	R	113	RS1/16S103J	
D	915	LED	CL200PGCTU	R	114	RS1/16S103J	
D	916	LED	CL150DCD(AB)	R	115	RS1/16S102J	
D	917	Diode	UDZ2R7(B)	R	116	RS1/16S163J	
D	918	Diode	UDZ2R7(B)	R	117	RS1/16S163J	
S	901	Switch	CSG1043	R	120	RS1/16S101J	
S	902	Switch	CSG1043	R	121	RS1/16S101J	
S	903	Switch	CSG1043	R	125	RS1/16S0R0J	
S	904	Switch	CSG1043	R	201	RS1/16S104J	
S	905	Switch	CSG1043	R	202	RS1/16S103J	
S	906	Switch	CSG1043	R	203	RS1/16S332J	
S	907	Switch	CSG1043	R	204	RS1/16S752J	
S	910	Spring Switch	CSN1033	R	205	RS1/16S752J	
IL	901	Lamp 60mA, 8V	CEL1526	R	206	RS1/16S101J	
IL	902	Lamp 60mA, 8V	CEL1526	R	250	RS1/16S331J	
IL	903	Lamp 60mA, 8V	CEL1568	R	251	RS1/16S331J	
IL	904	Lamp 60mA, 8V	CEL1568	R	252	RS1/16S331J	
RESISTORS				R	253	RS1/16S331J	
				R	254	RS1/16S331J	
R	901		RS1/10S561J	R	255	RS1/16S471J	
R	902		RS1/10S561J	R	256	RS1/16S471J	
R	903		RS1/10S561J	R	259	RS1/16S221J	
R	904		RS1/10S561J	R	263	RS1/16S471J	
R	910		RS1/8S511J	R	269	RS1/16S0R0J	
R	911		RS1/8S511J	R	274	RS1/16S471J	
R	912		RS1/8S511J	R	277	RS1/16S471J	
R	913		RS1/8S511J	R	301	RS1/16S103J	
R	914		RS1/8S511J	R	302	RS1/16S153J	
R	915		RS1/8S511J	R	303	RS1/16S103J	
				R	304	RS1/16S273J	
R	916		RS1/8S511J	R	305	RS1/16S103J	
R	917		RS1/8S511J	R	306	RS1/16S752J	
R	918		RS1/8S511J	R	307	RS1/16S103J	
R	919		RS1/8S511J	R	308	RS1/16S103J	
R	920		RS1/8S511J				
				R	309	RS1/16S471J	
R	921		RS1/8S511J	R	311	RS1/16S471J	
R	931		RS1/8S510J	CAPACITORS			
R	932		RS1/8S510J				
R	934		RS1/10S223J	C	101	CEV101M6R3	
R	935		RS1/10S102J	C	102	CKSQYB104K16	
				C	103	CEV470M6R3	
R	936		RS1/10S103J	C	104	CKSQYB334K16	
R	937		RS1/10S362J	C	105	CCSRCH240J50	
R	938		RS1/10S472J				
CAPACITORS				C	106	CKSRYB222K50	
C	901	CKSQYB104K50		C	107	CEV4R7M35	
C Unit Number : CWX2202 Unit Name : CD Core Unit(Servo Unit)				C	108	CKSRYB273K25	
MISCELLANEOUS				C	109	CCSRCH101J50	
				C	110	CKSQYB104K16	
IC	101	IC	UPC2572GS	C	111	CKSRYB332K50	
IC	201	IC	UPD63702AGF	C	112	CKSQYB473K16	
IC	301	IC	BA5986FM	C	113	CKSRYB103K25	
Q	101	Transistor	2SD1664	C	114	CKSRYB391K50	
Q	102	Transistor	UMD2N	C	115	CCSRCH121J50	
				C	116	CKSRYB682K50	
D	301	Diode	1SR154-400	C	117	CKSRYB333K16	
X	201	Ceramic Resonator 16.934MHz	CSS1457	C	118	CKSQYB334K16	
EF	201	Filter	CCG1076	C	119	CKSQYB334K16	
				C	120	CKSQYB334K16	
RESISTORS				C	121	CKSQYB334K16	
				C	122	CKSQYB104K16	
R	101		RS1/8S100J	C	123	CKSRYB472K50	
R	102		RS1/8S120J	C	124	CKSQYB104K16	
R	104		RS1/16S822J	C	125	CCSRCH5R0C50	
R	105		RS1/16S682J				
R	106		RS1/16S183J				

====Circuit Symbol and No.====Part Name	Part No.
C 126	CKSRYP153K25
C 127	CKSRYP102K50
C 201	CKSQYB334K16
C 202	CKSQYB104K16
C 203	CKSQYB104K16
C 204	CKSRYP471K50
C 207	CKSQYB683K16
C 208	CKSRYP821K50
C 209	CKSRYP273K25
C 210	CKSQYB334K16
C 211	CKSQYB334K16
C 212	CKSQYB334K16
C 213 22μF/6.3V	CCH1300
C 301	CEV101M10
C 302	CEV101M10

D Unit Number : CWX2203
Unit Name : CD Core Unit(STS Unit)

MISCELLANEOUS

IC 501 IC	CXD2511R
IC 502 IC	MSM514400DP-60TS
IC 601 IC	AK4321VF
IC 701 IC	BA05SFP
IC 801 IC	LB1836M
IC 802 IC	LB1836M
Q 801 Transistor	DTA123JK
Q 802 Transistor	UN2211
D 701 Diode	1SR154-400
D 702 Diode	1SR154-400
D 703 Diode	1SS355
D 704 Diode	1SS355
D 705 Diode	1SS355
D 706 Diode	1SS355
D 707 Diode	1SS355
D 708 Diode	1SS355
S 801 Spring Switch(LOAD)	CSN1052
S 802 Spring Switch(DOOR)	CSN1052
S 803 Spring Switch(MODE)	CSN1052
EF 701 Filter	CCG1051
EF 702 Filter	CCG1051

RESISTORS

R 501	RS1/16S102J
R 502	RS1/16S202J
R 503	RS1/16S392J
R 504	RS1/16S822J
R 505	RS1/16S163J
R 506	RS1/16S512J
R 507	RS1/16S182J
R 508	RS1/16S222J
R 509	RS1/16S102J
R 510	RS1/16S102J
R 511	RS1/16S102J
R 512	RS1/16S102J
R 513	RS1/16S102J
R 514	RS1/16S471J
R 601	RS1/16S101J
R 602	RS1/16S101J
R 603	RS1/16S471J
R 604	RS1/16S471J
R 701	RS1/10S0R0J
R 702	RS1/10S100J
R 716	RS1/16S471J
R 717	RS1/16S471J
R 718	RS1/16S471J
R 801	RS1/10S102J

====Circuit Symbol and No.====Part Name	Part No.
CAPACITORS	
C 501	CKSQYB334K16
C 502	CKSQYB334K16
C 503	CKSQYB334K16
C 504	CCSRCH471J50
C 506	CCSRCH221J50
C 601	CKSQYB334K16
C 602	CCSRCH221J50
C 603	CKSQYB334K16
C 604	CKSQYB334K16
C 605 22μF/6.3V	CCH1300
C 606	CKSQYB334K16
C 701 22μF/6.3V	CCH1300
C 702	CEVL101M6R3
C 703	CKSQYB334K16
C 704	CKSQYB334K16
C 801	CKSQYB104K25
C 802	CKSQYB104K25
C 803	CEVL220M16

G Unit Number :
Unit Name : PCB Unit(D)

Q 851	Photo-transistor	CPT230SCTD(CD)
Q 852	Photo-transistor	CPT230SCTD(CD)

I Unit Number :
Unit Name : PCB Unit(E)

R 856	RS1/8S911J
R 857	RS1/8S821J

J Unit Number :
Unit Name : PCB Unit(C)

Q 881	Photo-transistor	CPT230SCTD(CD)
D 883	Chip LED	CL202IRXTU
S 885	Spring Switch(MAX)	CSN1052

L Unit Number :
Unit Name : PCB Unit(A)

D 891	Chip LED	CL202IRXTU
D 892	Chip LED	CL202IRXTU

H Unit Number :
Unit Name : PCB Unit(B)

S 886	Spring Switch(ELV Home)	CSN1052
S 887	Spring Switch(Clamp)	CSN1051

F Unit Number :
Unit Name : Motor PCB(A)

Q 1	Photo-interrupter	RPI-221
M 1	Motor Unit(Cam Gear)	CXB3174
M 3	Motor Unit(ELV)	CXB3175

E Unit Number :
Unit Name : Motor PCB(B)

M 4	Motor Unit(Carriage)	CXB3178
M 5	Motor(Spindle)	CXM1120

K Unit Number :
Unit Name : Load Motor PCB

M 2	Motor Unit(Load)	CXB3177
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Miscellaneous Parts List

Pickup Unit(Service)/(P8)	CXX1311
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6. ADJUSTMENT

CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT

• **Note :**

The grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best considered as a last resort. However, if the PU unit must be changed, the grating should be checked using the procedure below.

• **Purpose :**

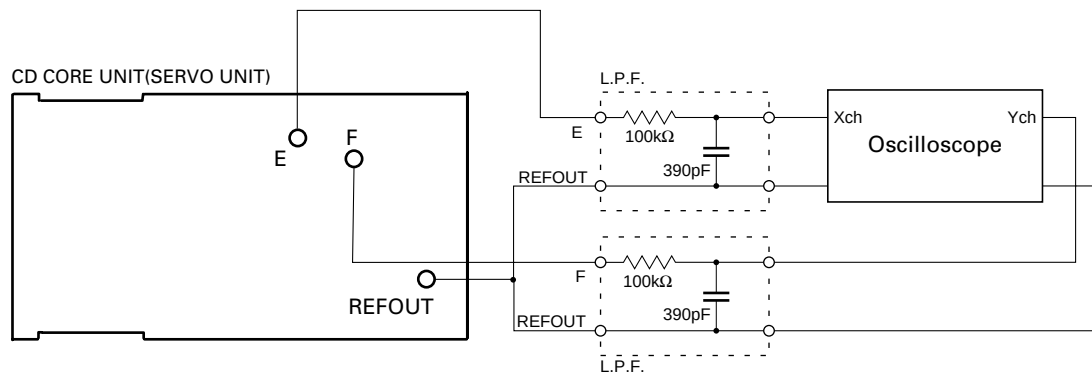
To check that the grating is within an acceptable range when the PU unit is changed.

• **Symptoms of Mal-adjustment :**

If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or taking a long time for track searching.

• **Method :**

- | | |
|-----------------------|----------------------------|
| • Measuring Equipment | • Oscilloscope, Two L.P.F. |
| • Measuring Points | • E, F, REFOUT |
| • Disc | • ABEX TCD-784 |
| • Mode | • TEST MODE |



• **Checking Procedure**

1. In test mode, load the disc and switch the 5V regulator on.
2. Using the TRK+ and TRK- buttons, move the PU unit to the innermost track.
3. Press key **F9** to close focus, the display should read "91". Press key **F8** to implement the tracking balance adjustment the display should now read "81". Press key **F9** 4 times. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75° . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° try changing the PU unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.

• **Note**

Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

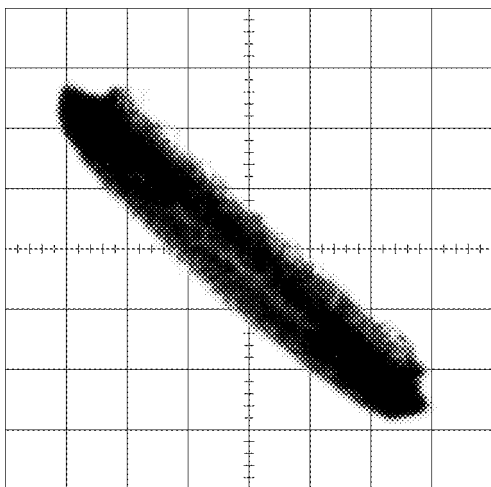
• **Hint**

Reloading the disc changes the clamp position and may decrease the "wobble".

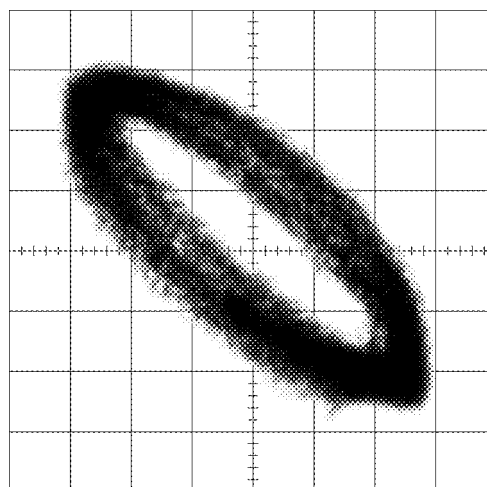
Grating waveform

Ech $\rightarrow$ Xch 20mV/div, AC
Fch $\rightarrow$ Ych 20mV/div, AC

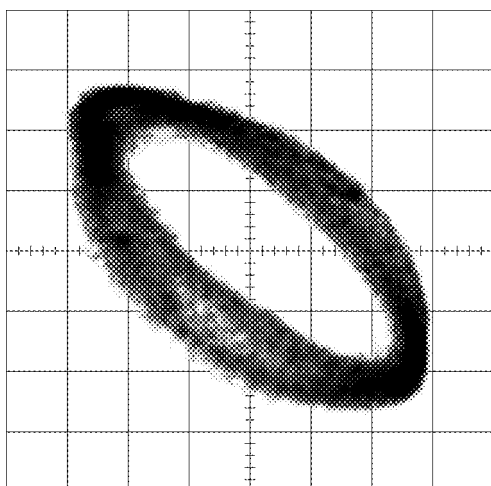
0°



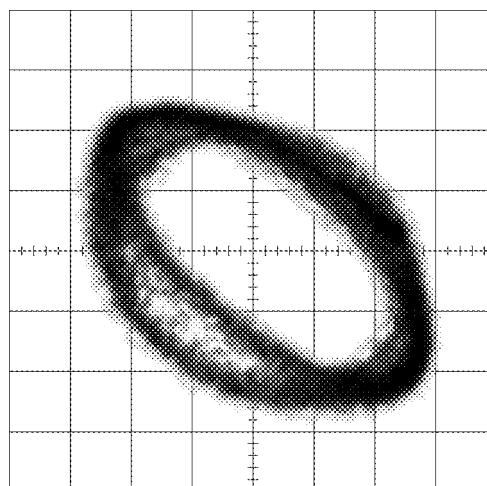
30°



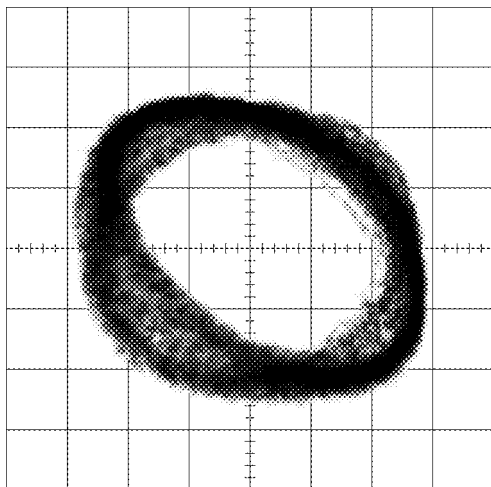
45°



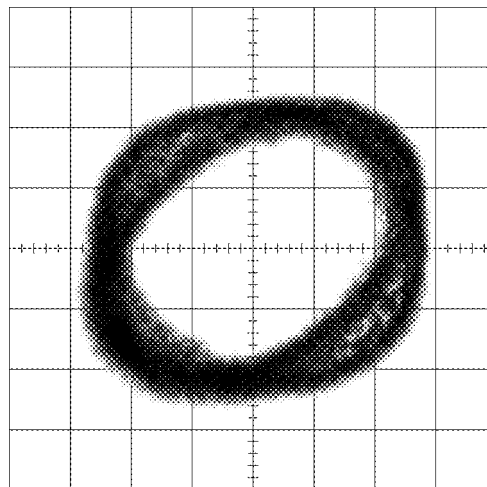
60°



75°



90°



7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TEST MODE

● CD Test Mode

1) Precautions on Adjustment

- The unit employs a single voltage (+5V) for the regulator, thus the reference potential of the signal is RFOUT (approximately 2.5V) rather than GND. Inadvertent contact of RFOUT and GND during adjustment can result not only in disabling normal potential measurement but also in exposing the pick-up to strong impacts due to malfunctioning of the servo. Therefore, you are requested to observe the following precautions.
- Make sure that the negative probe of the measuring instrument is not connected to RFOUT or GND. Special care must be exercised so that the channel 1 negative probe may not be connected to the oscilloscope and the channel 2 negative probe to GND. Since the frame of the measuring instrument is usually at the same potential as the negative probe, the frame of the measuring instrument must be changed to floating status.
When RFOUT is inadvertently connected to GND, you must immediately turn off the regulator or power supply.
- The regulator must be turned off before mounting or dismounting filters or wiring materials.
- You should not start adjustment or measurement immediately after the regulator is turned on. It is recommended to run the player for approximately one minute so that it may stabilize.
- When the test mode is turned on, various protective functions from the software become unavailable. Thus, you must make sure that undesirable electric or mechanical shocks are not be given to the system.
- This model employs a photo-transistor for detecting discs at their loading or ejection. Thus, if its outer case is removed during repair work and internal parts are exposed to light of strong intensity, malfunctions including the following can result:
 - * The eject button becomes inoperable during play. Pressing the eject button does not eject a disc and play is continued.
 - * Loading becomes unavailable.
 If a malfunction is recognized, appropriate remedial actions must be taken. Such actions include changing the light source position, changing the unit position and applying a cover to the photo-transistor.
- When you press the [EJECT] key to eject a disc, you must not touch any other key until the ejection is complete.
- If you press the [FF] or [REV] for the focus search in the test mode, you must turn the power off immediately. (Otherwise, the lens will be forced to stick to the top or bottom, potentially resulting in the burning of the actuator.)

2) Test Mode Controller

It has RPT and ASEL (RDM) functions which can be separately turned on.

(Even if a common key is used for both functions, it is usable as long as it can turn on the RPT when depressed for a longer duration and the ASEL for a shorter duration. The type of key that sequentially turns on the RPT, ASEL and NORMAL is not acceptable.)

For performing adjustments, this product should be connected to a CD control unit (Pioneer 14-pin H-BUS head unit). So, you can operate the product using the keys on the CD control unit connected to it.

See below on how to enter the test mode and key operations when KEH-M7056ZH-02/US is connected. The keys referred to in the adjustment explanations are those for KEH-M7056ZH-02/US. (When KEH-M7056ZH-02/US is used as a head unit, connect the 8-pin/14-pin conversion jig (GGD1163) to it.)

● Turning the Test Mode On and Off

- ① Turn the power on while depressing the [EJECT] key. Release the [EJECT] key 5 seconds after powering on. (If the [EJECT] key is being depressed when you hit the reset start key, the test mode will be automatically be turned on.)
- ② Turn the source (CD) on.
- ③ As the test mode is turned on, "55" will be displayed by the track number indicator. At this time, the disc number indicator will display the number of the disc selected.
- ④ Turn Backup or Acc off once, then turn it on again to cancel the test mode.

● [Important] Display and Bus Data While the Test Mode is On

- * In order to operate the test mode from the currently marketed Head unit which is not equipped with a test mode command output function, the same bus communication as that in the normal operation mode is carried out with the Head unit. And, as long as the test mode is on, it is connected as the changer (single CD player in normal mode).
- * If the servo test mode or the mechanical test mode is selected, display of the disc number will be fixed at "6". This arrangement has been employed because the Head unit on the H-BUS does not output the corresponding command when one of the [1] to [6] keys is depressed if the depressed one is identical to the displayed disc number (for instance, if "DISC 4" is displayed, pressing the [4] key does not output the corresponding command). Thus, when the test mode is started, check the currently selected disc number before turning on the servo test mode or the mechanical test mode (namely, turn the above mode on when "55" is displayed). Turning off the servo test mode or the mechanical test mode restores the display shown in ③ above.

● [Important] Precautions on Key Operations in Test Mode

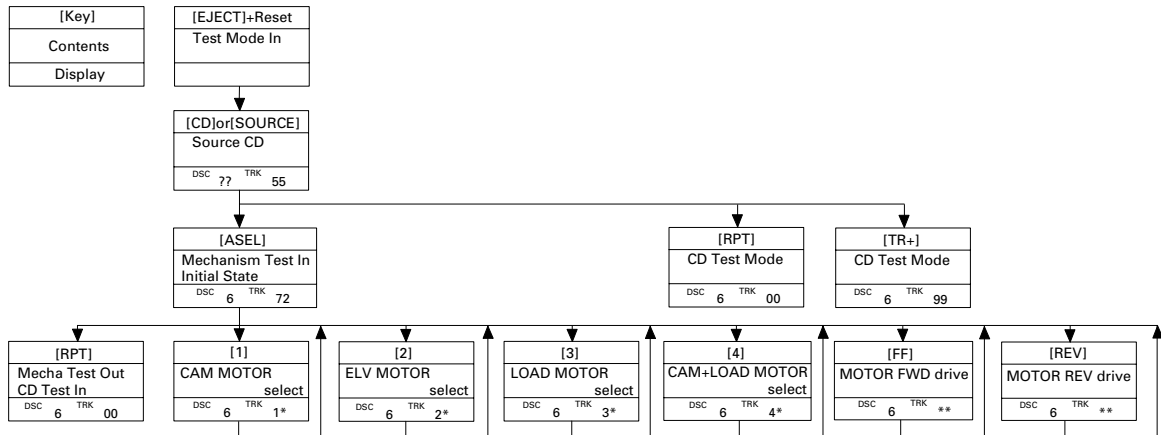
- * If you press one of the [1] to [5] keys while the display is fixed at "DISC 6", the Head unit displays the depressed key number once. Thus, don't try to operate any keys until the "DISC 6" display is restored. It takes 3 to 4 seconds.
Example: If you depress the [5] key when "D = 6 and TR = 99" are displayed, the display will sequentially change as shown below:
"D = 5, TR = 00" -> "D = 6, TR = 00" -> "D = 6, TR = ?? (now you can proceed to the next operation).
- * If you depress the [RPT] or [ASEL] key, the RPT or ASEL LED on the indicator comes on once, then it goes off in 3 to 4 seconds. Therefore, don't try to operate keys until the LED goes off.

● [Important] Other Precautions

- * Due to a slower bus communication rate, data displayed on the track number indicator may fail to catch up with the mechanical status changes. This is especially true when the mechanism is operated in the test mode. So, when operating the system in the mechanical test mode, you should monitor the changes after removing the top plate.
- * When turning on the servo or mechanical test mode with the disc inserted, be sure to insert the disc while the normal mode is on, that is, before starting the test mode.
- * The common SEEK key is used for the [FF/REV] and [UP/DOWN] functions on the Head unit. Thus, when operating the [FF/REV] key, you need to hold the SEEK key down for at least 0.5 seconds. When the [FF/REV] operation is validated, beep will sound and the mechanism starts. If the SEEK key is released before the 0.5-second elapse time, it will be mistaken as the UP/DOWN operation, resulting in +1 incrementing (or -1 decrementing) of the value displayed on the track number indicated. In this case, leave as is and the original display will be restored in several seconds.



● CD Changer Mechanism Flowchart

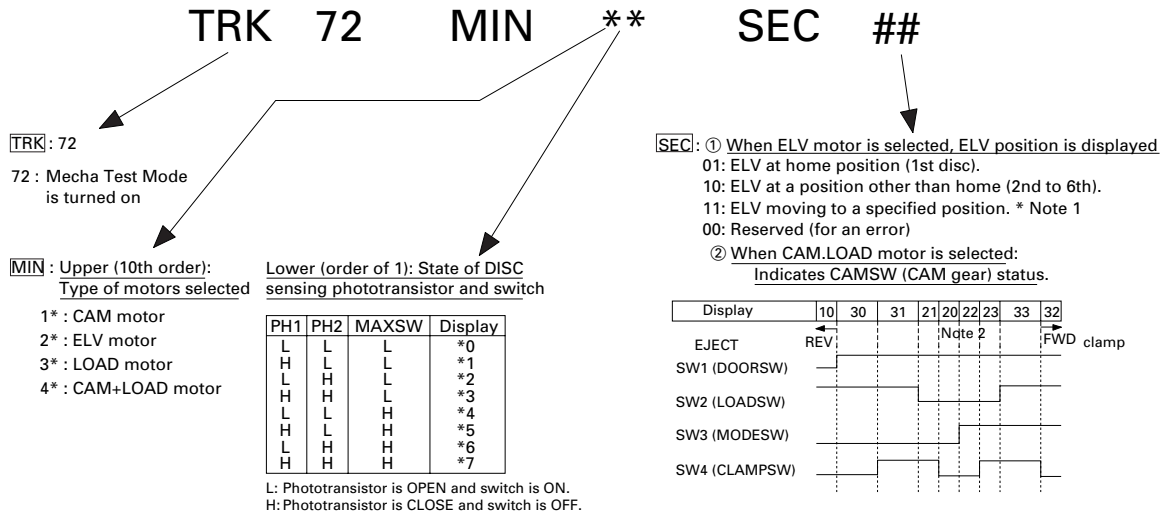


● Operating Procedures:

- 1) Turn on the CD Test Mode, then select the CD-MULTI for the SOURCE.
- 2) Select the motor to be driven using the [1] to [4] keys. (TRK γ^*)
- 3) Press the [FF] or [REV] in this state to drive the selected motor.

[Key]	Operation
[ASEL]	Mechanism Test is initialized.
[FF]	Valid only when the motor selected (using the [1] to [4] keys) is driven in FWD direction.
[REV]	Valid only when the motor selected (using the [1] to [4] keys) is driven in REV direction.
[1]	CAM MOTOR is selected.
[2]	ELV MOTOR is selected.
[3]	LOAD MOTOR is selected.
[4]	CAM + LOAD MOTOR is selected.

<Screen Display during Mecha Test Mode>



An example when TRK 72, MIN 10 and SEC 31:

Test Mode is turned on from TRK 72.
CAMMOTOR is selected from 1 of MIN 10 and PH1/PH2 are selected from 0. All MAX switches are set to L (low).
As for SEC 31, since CAMMOTOR is selected from MIN, CAM gear CLAMP switch is set to L (low) and others are H (high) from SEC①.

● Precautions

- * The keys are inoperable as long as operation of the mechanism is continued.
- * When driving the CAMMOTOR in 31 → 30 → 10 (in REV direction), the elevation position must be at the EJECT/LOAD position (the top position).

Note 1: When the elevation is situated at the Note 1 position, move of any motor other than the REV is disabled.

Note 2: Before performing the elevation, make sure that the CAM SW (switch) is set to a position between 22 and 20.

As a rule, driving of the ELV MOTOR must be started immediately after the CAMSW indication has changed from 22 to 20.

● Operating Procedures for Ejecting a Clamped Disc

- ① Select CAMMOTOR using [1], then press the REV direction while the disc is being clamped (CAMSW state is 32).
The CAMSW status indication sequentially changes through 32→33→23→22.
- ② When the disc to be ejected is not identical with the disc being clamped, select the [2] ELVMOTOR in the vicinity of where the display changes from 22 to 20, then match the elevation to the disc to be ejected according to the following procedures:
After selecting ELVMOTOR, lower the elevation until the ELV position display becomes 01 (1st disc) using the REV direction.
Drive the elevation up until the display is changed to 10. This is the elevation where the second disk is situated.
The next display of 10 tells you the elevation of the 3rd disc. Repeating this operation allows you to establish an elevation matching each disc. (When the elevation is driven from the 1st through 6th disc, the status display changes as 01→11→10→11→10→11→10→11→10→11→10.)
(When the disc to be ejected coincides with the disc being clamped, the above operations are not necessary.)
- ③ Select the [1] CAMMOTOR and then, using the REV direction, drive it until the display changes from 20 (or 22) to 21 and 31.
- ④ Select the [2] ELVMOTOR, then drive the tray of the disc to be ejected up to the EJECT/LOAD position (using the FWD direction).
- ⑤ Select the [4] CAM+LOADMOTOR, then drive it in the REV direction until the display changes from 31 to 30 and 10.
The door will open immediately before the display changes to 10 and part of the disc will be pushed out.
- ⑥ When 10 is displayed, select the [3] LOADMOTOR, then drive it in REV direction until the disc is completely ejected.

7.1.2 DISASSEMBLY

● Removing the upper case (not shown)

1. Remove the five screws, then remove the upper case.

● Removing the Extension Unit (Fig. 1)

1. Remove the three screws B, then remove the side frame and holder.
2. Remove screw C, screw D and PCB from the connector.
3. Straighten the three currently bent claws, then remove the extension unit.

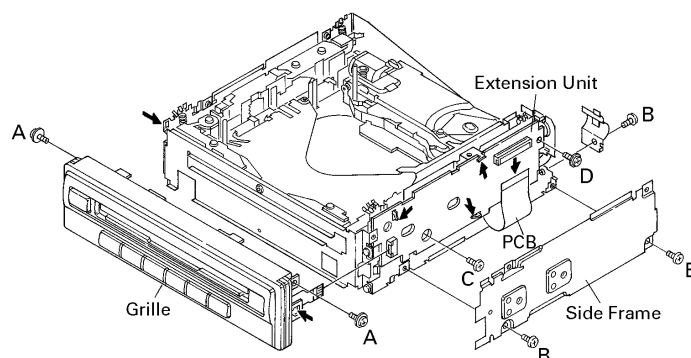


Fig. 1

● Removing the Grille Assy (Fig. 1)

1. Remove the two screws A and the connector, then remove the grille assy.

● Removing the CD Mechanism Module (Fig. 2)

1. Remove the three screws A, then remove the front frame.
2. Remove the three screws B and two screws C, then remove the damper and holder.
3. Remove the two spring ①s, spring ② and spring ③ from the hook, then remove the CD mechanism module.

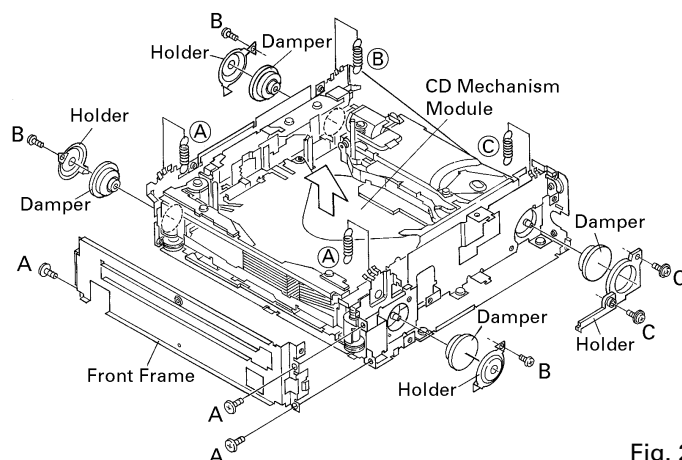


Fig. 2

– Precautions on Assembly –
 Apply spring ③ (black) to the front side hook.
 Remaining springs ① and ② are to be hung on the center hook.

● Removing the Keyboard PCB (Fig. 3)

1. Remove screws A and B, then remove the switch PCB.
2. Remove the four screws C, then remove the guide.
3. Remove the four screws B and screw A, then remove the keyboard PCB.

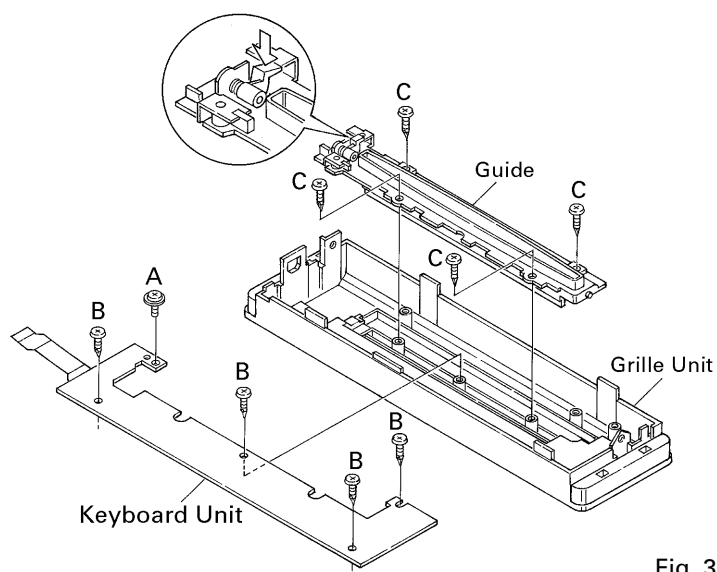


Fig. 3

● How to remove the Tray Assy

1. Apply about 6V current to the Cam gear motor until all holes match at the position (A) (elevation OK position).
2. Hook the three springs B temporarily as shown in Fig. 5. While pushing the Tray holder lock arms (right and left) in the direction (C), remove the Tray holder.

3. Lift up the Tray assy to remove it.

* Be careful not to remove the Tray hooks from the Tray assy.

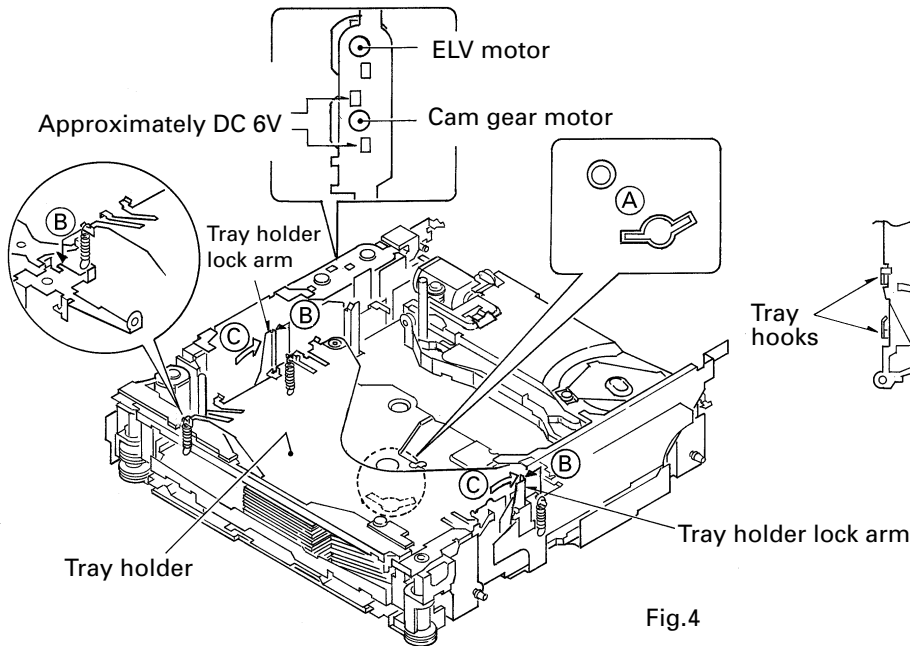


Fig. 4

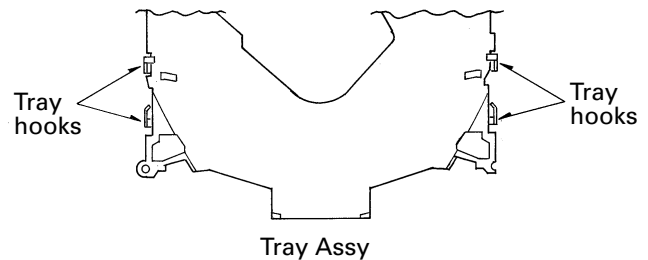


Fig. 5

● How to remove the Carriage Mech Assy

1. Insert a short pin into the flexible PCB of the Pickup unit.
2. While opening the resin hooks, remove the cover from the Servo unit.
3. Disconnect the flexible PCBs from the connectors CN101 and CN301.
4. Remove the Tray holder and the Tray assy. (See above)
5. Rotate the Cam gear motor until the positions of all holes (E) match, then stop the motor. (The Carriage Mech assy will stop as shown in the Fig.7.)

* When the positions of all holes match, they will be completely covered by the Carriage mech assy.

* To rotate the Cam Gear motor, see "How to remove the Tray assy".

6. Unhook the spring A.
7. Remove the flexible holder B (while opening the hooks).
8. Remove the flexible PCB (C) from the motor. (The flexible PCB (C) has been stuck on the motor with double-sided adhesive tape.)
9. Loosen the fixing screw and remove the flexible holder.

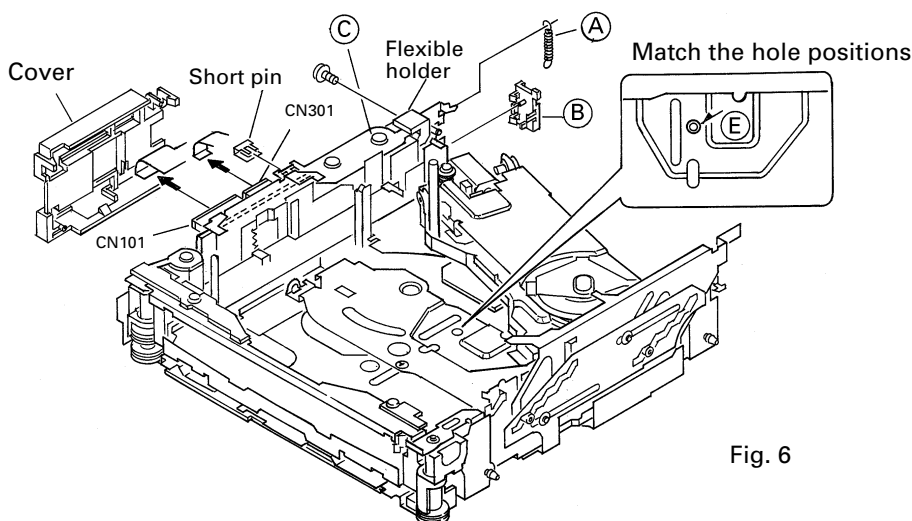


Fig. 6

10. Remove the screw, pressure spring and collar. Lift up the Carriage mechanism assy to remove it.

* Screw tightening torque: 2.6kgfcm

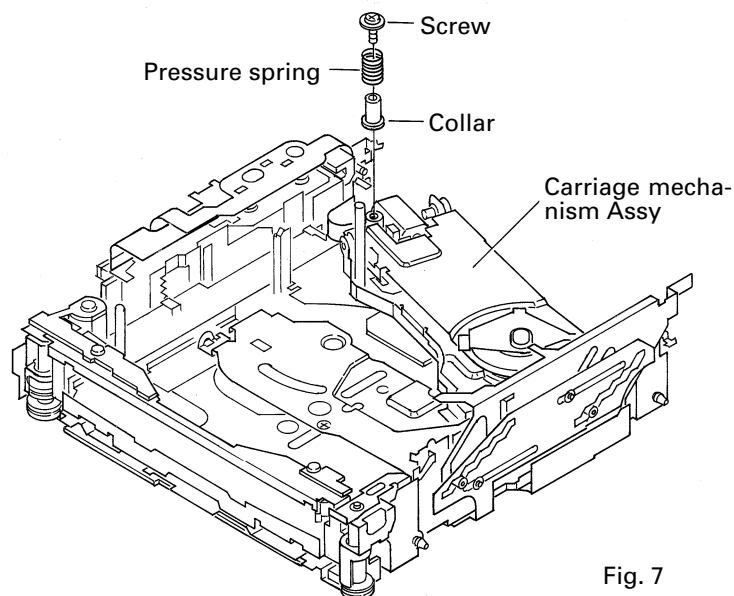


Fig. 7

● How to remove the Pickup unit

1. Remove the pulling spring, torsion spring and E-shaped ring. Then remove the Clamper arm.

* The spring (A) will be removed with the Clamper arm.

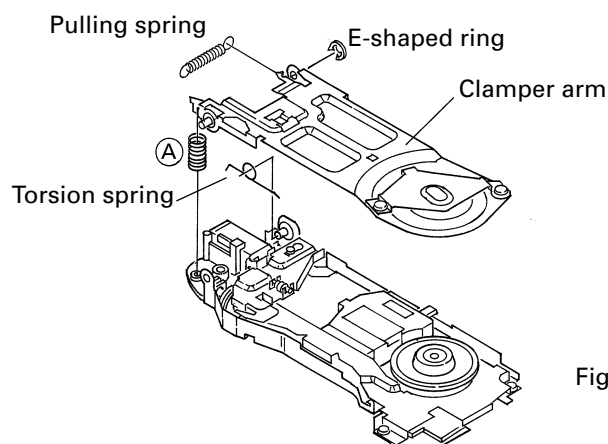


Fig. 8

2. Slide the Clamp UP lever (B) to remove it.
 3. Loosen the 2 screws. Remove the feed-screw cover by sliding it.
 4. Remove the feed-screw pressure spring (D).
 5. Loosen the 2 screws. Remove the feed-screw holder (E).
 6. Remove the belt.

7. Remove the Pickup unit together with the feed screw.

* Be careful not to lose the shaft holders at the both ends of the feed screw.

* Be careful not to damage the 2 flexible PCBs (for the Pickup and motor) when separating them. The flexible PCBs have been stuck each other with double-sided adhesive tape.

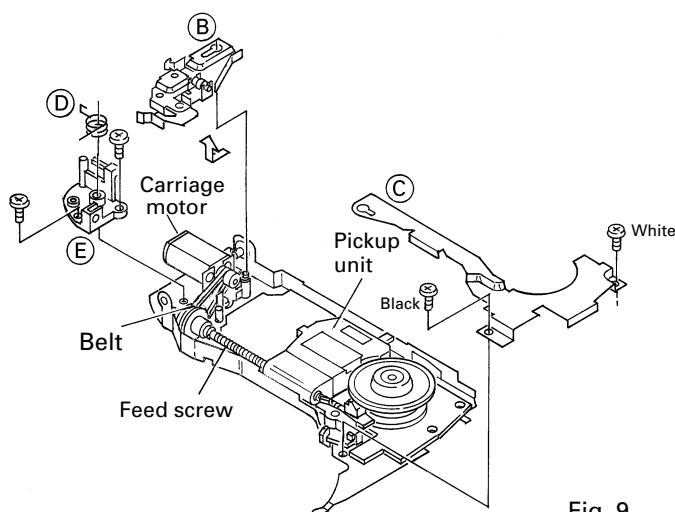


Fig. 9

8. Loosen the 2 screws. Remove the plate spring and the rack.
9. Pull out the feed screw from the Pickup unit.

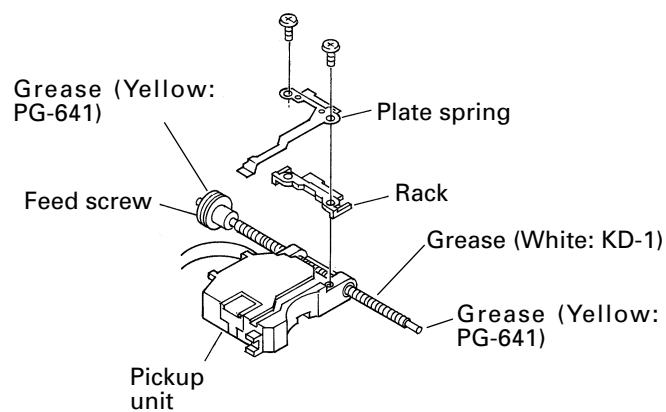
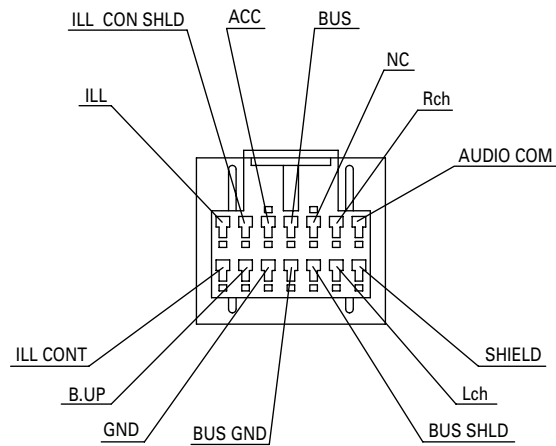
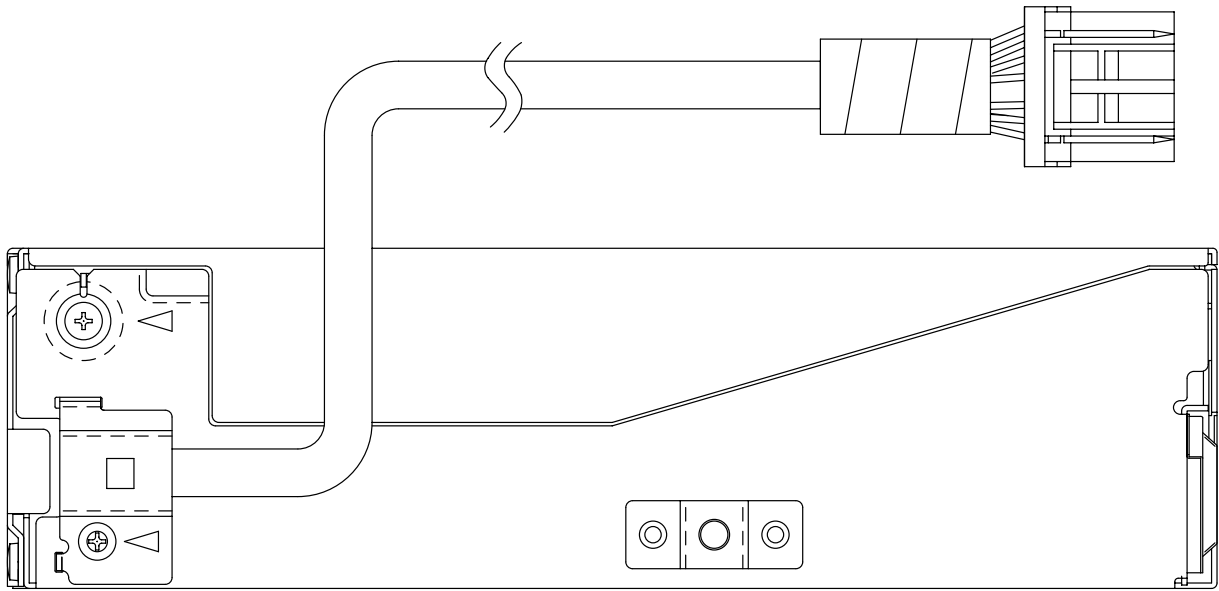


Fig. 10

7.1.3 CONNECTOR FUNCTION DESCRIPTION



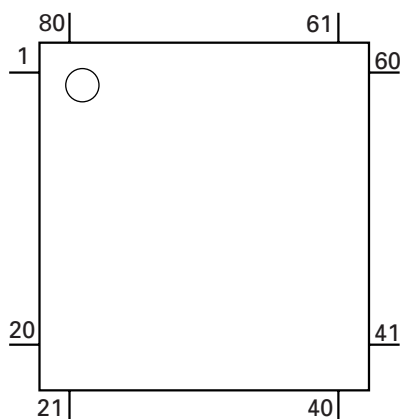
7.2 IC

● Pin Functions (PD5470A)

Pin No.	Pin Name	I/O	Function and Operation
1	VDIN	I	VD power supply sensor input
2	DOORSW	I	Door open position sense input
3	NC		Not used
4	ASO	O	IP-BUS data output
5	CLAMPSW	I	Disk clamp sense input
6	ELHOME	I	Elevation sense input
7	XSCK	O	LSI clock output
8	XSO	O	LSI data output
9	XSI	I	LSI data input
10	XSTB	O	LSI strobe output
11	XRST	O	LSI reset output
12	XAO	O	LSI data discernment control signal output
13	VDCONT	O	VD power supply control output
14	EJECTKEY	I	Eject key input
15	ASENS	I	ACC power sense input
16	ASI	I	IP-BUS data input
17	LOADSW	I	Loading sense input
18	ELVSW	I	Elevation OK input
19-21	NC		Not used
22	BSENS	I	Back up power sense input
23	SBSY	I	Signal indicating head of subcode block input
24	NC		Not used
25	RESET	I	Reset input
26	POWER	O	+5V power supply control output
27	CONT	O	Servo driver power supply control output
28	XIN	I	Crystal oscillating element connection pin
29	XOUT	O	Crystal oscillating element connection pin
30	VSS		GND
31-33	KST1-3	O	Key strobe output
34,35	KD1,2	I	Key data input
36,37	ILL1,2	O	Illumination output
38	AD		Address bus
39	TESTIN	I	Test program mode input
40	DCLOSE	I	Door close sense input
41	WDSL	O	Data comparison designation output
42	XWIH	I	DRAM data white inhibit input
43	XEMP	I	DRAM data read inhibit input
44	CHDT	I	Data comparison mode monitor input
45,46	CHM0,1	O	Data comparison mode output
47-49	NC		Not used
50	XWRE	O	DRAM data white enable output L:enable
51	XRDE	O	DRAM data read enable output L:enable
52	XQOK	O	SUB-Q OK output L:SUBQ OK
53	EMPH	O	DAC EMPH output
54	SCONT	O	Double speed select output
55	LOAD	O	LED power supply control output
56	CDMUTE	O	Mute output
57,58	LO2,1	O	Load motor control output
59,60	ELV2,1	O	ELV motor control output
61,62	CG2,1	O	CAM motor control output
63	MIRR	I	Mirror detector input
64	LOCK	I	Spindle lock detector input
65	FOK	I	FOK signal input
66	XSCK	O	Shift clock output
67	EXMODE	O	Latch clock output
68	EXSO	O	Serial data output

Pin No.	Pin Name	I/O	Function and Operation
69	EXCE	O	Chip enable output
70	INDICATOR	O	Illumination power supply control output
71	VCC		Power supply terminal
72	VREF	I	A/D converter reference voltage input
73	AVSS	I	A/D converter GND
74	ADRMON	I	DRAM memory remaining monitor input
75	EREF	I	DRAM A/D converter reference voltage input
76-78	PH1-3	I	Disc photo sense input
79	ELVSNS	I	ELV position sense input
80	TEMP	I	Temperature detector input

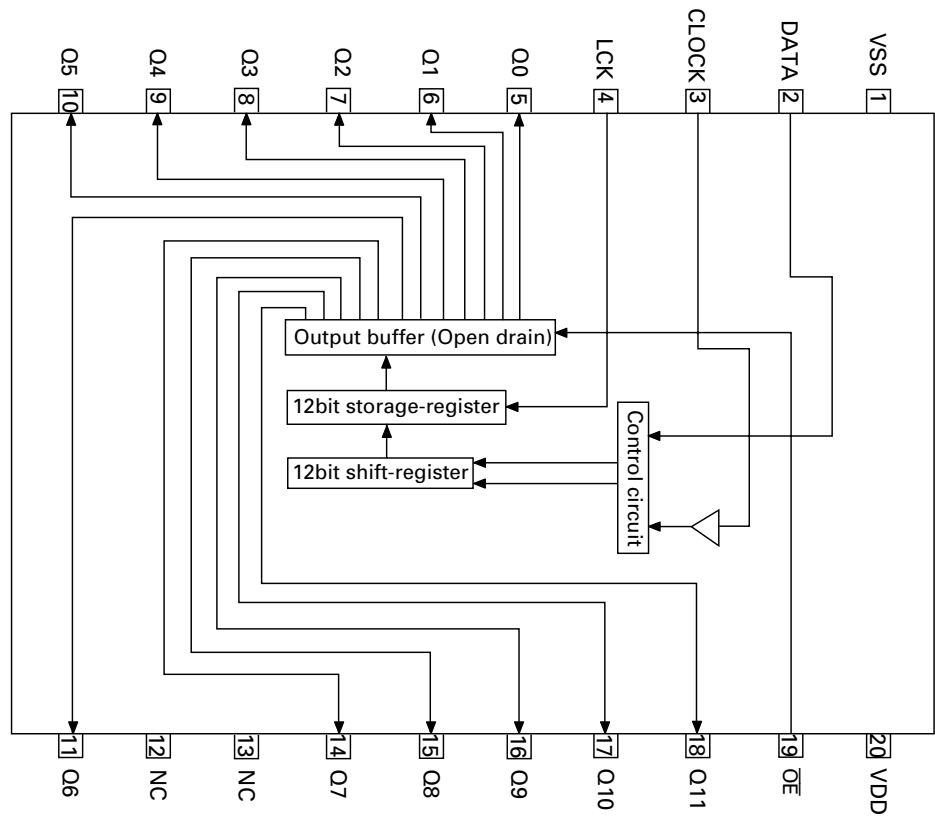
*PD5470A



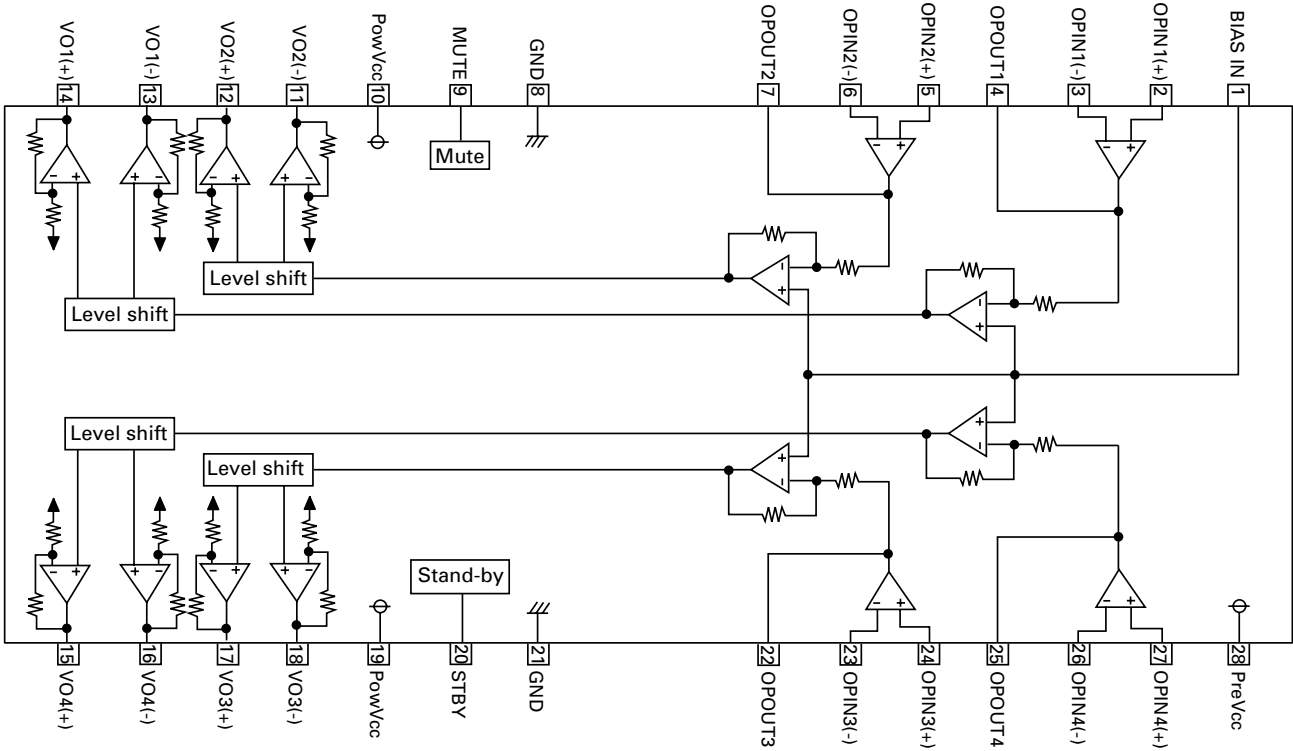
IC's marked by* are MOS type.

Be careful in handling them because they are very liable to be damaged by electrostatic induction.

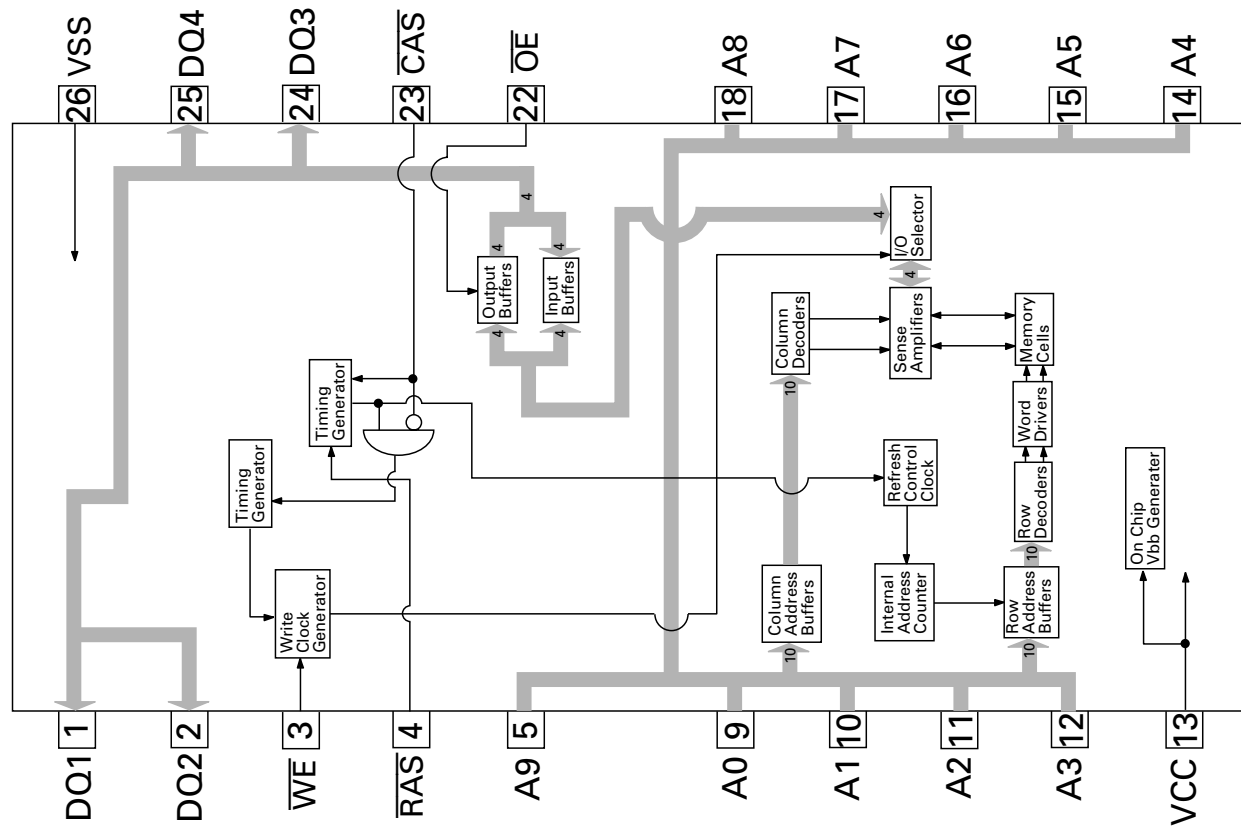
BU2092FV



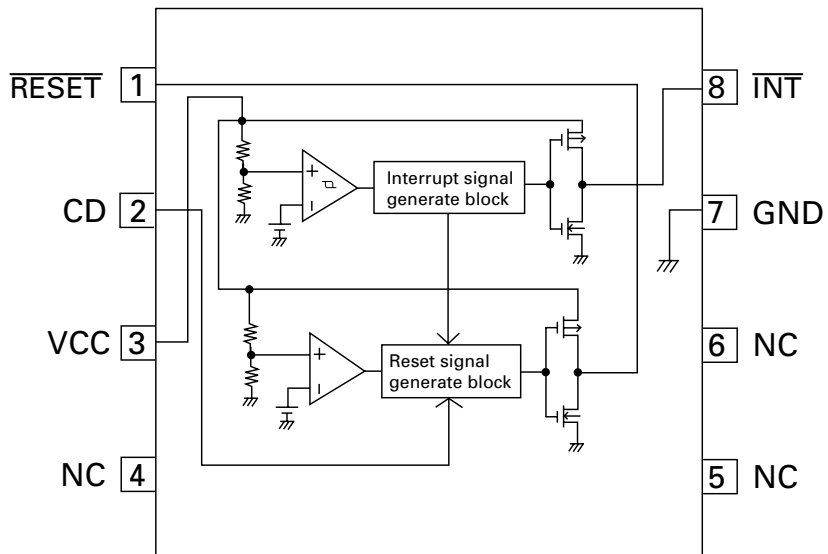
BA5986FM

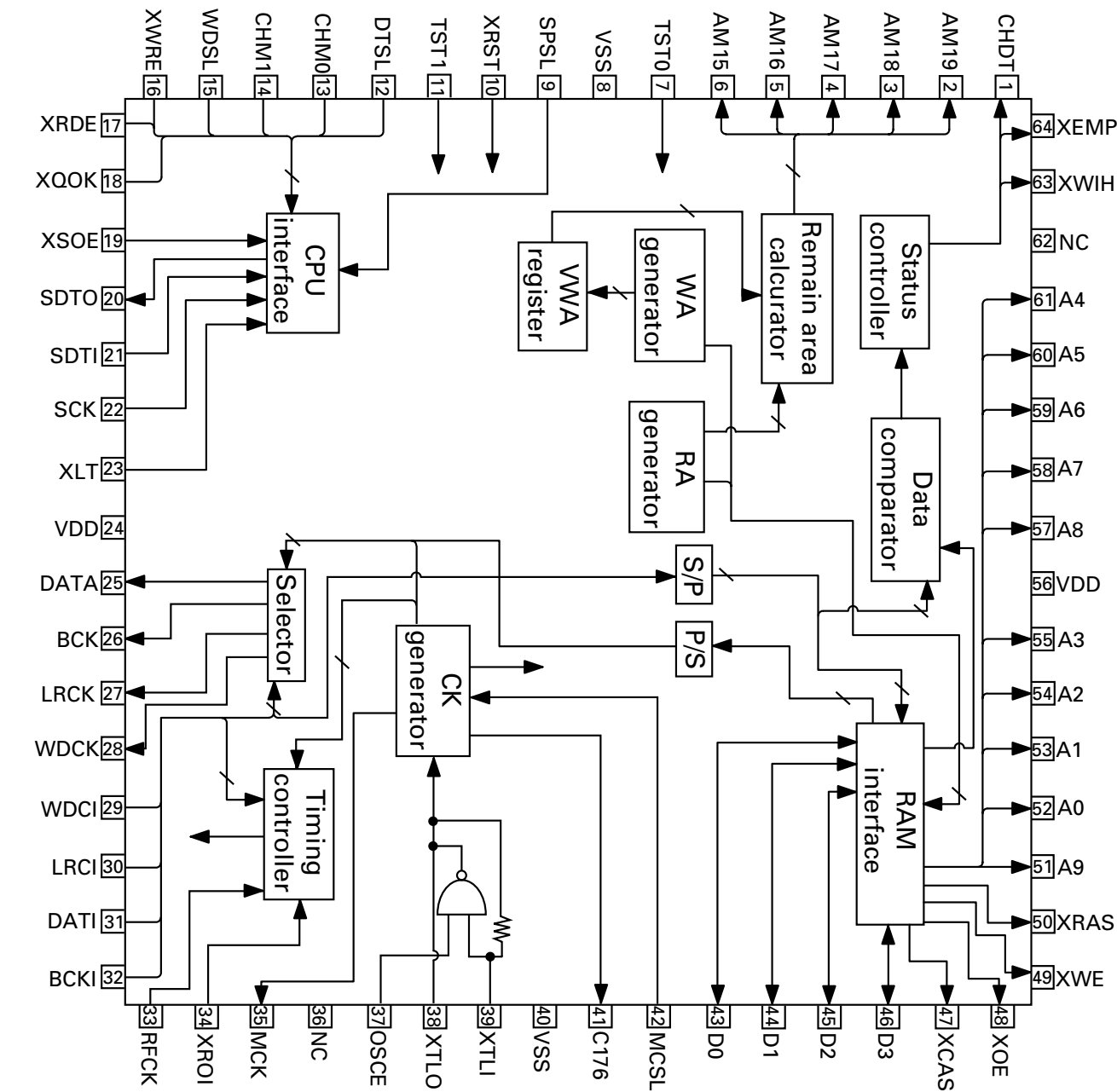


MSM514400DP-60TS



M62007FP

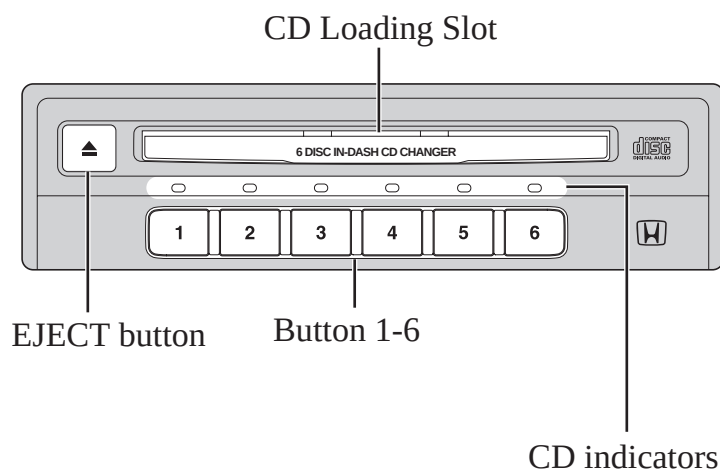




8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS

Key Finder



CD indicators		Status
Green	Lit	A CD is loaded.
	Flashing	The unit is in the CD loading standby mode.
		The unit is standing by during ejection of all the CDs.
Orange	Lit	The currently selected CD.
	Flashing	A CD is being loaded, changed or ejected.
Out		No CD is loaded.
		Power is switched OFF.

8.2 SPECIFICATIONS

General

Power source	13.2 V DC (10.8 – 15.2 V allowable)
Grounding system	Negative type
Standby current	2 mA or less
Rated current consumption	600 mA max.
Maximum current consumption	1.5 A max.
Dimensions (chassis size)	180 (W) × 50 (H) × 165 (D) mm [7-1/8 (W) × 2 (H) × 6-1/2 (D) in.]
Weight	1.6 kg (3.5 lbs)

CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal format	Sampling frequency: 44.1 kHz Number of quantization bits: 16;linear
Frequency characteristics	20 – 20,000 Hz
Signal-to-noise ratio	92 dB (1kHz) (IHF-A network)
Dynamic range	92 dB (1kHz)
Number of channels	2 (stereo)